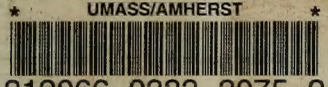


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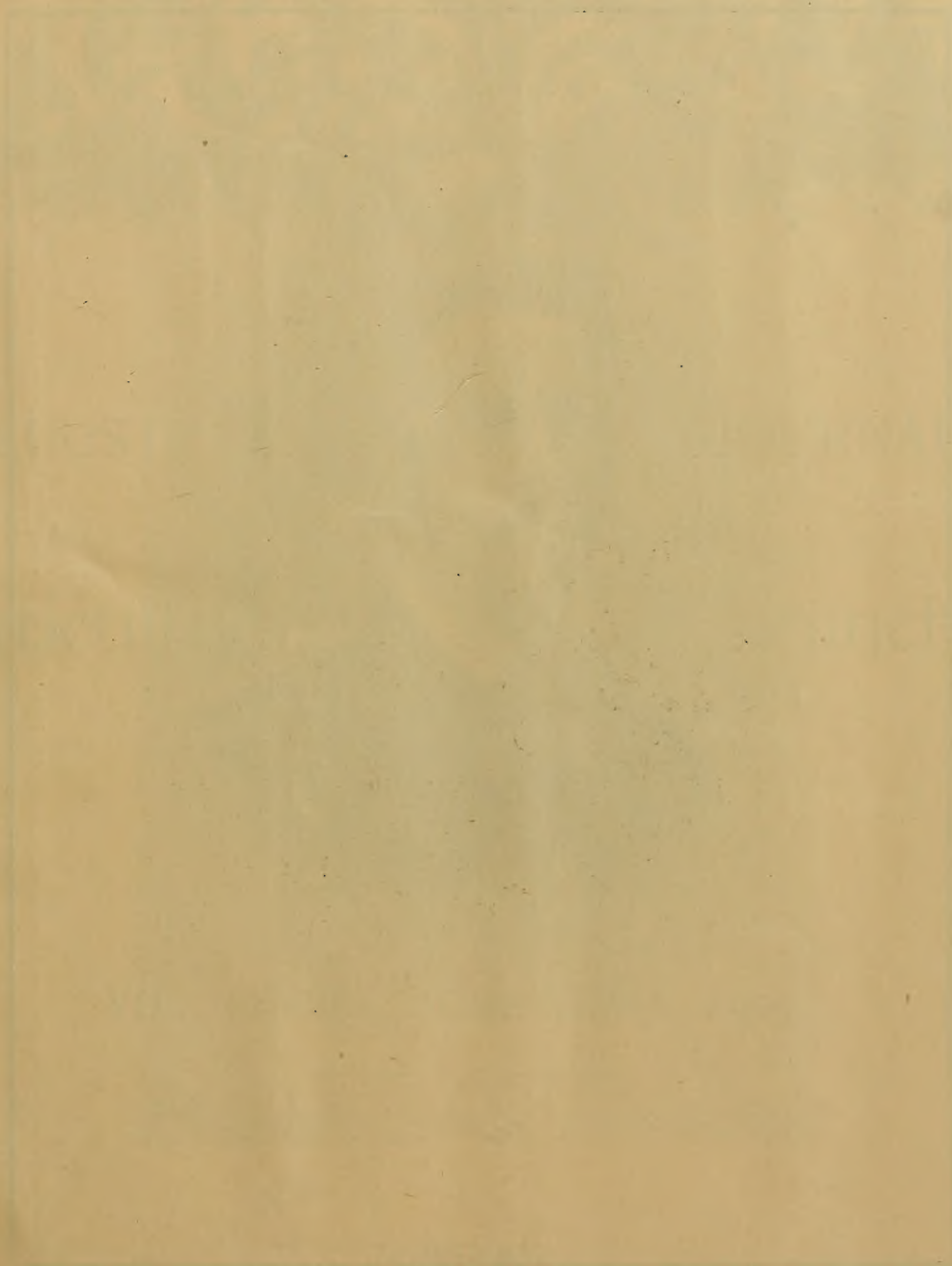
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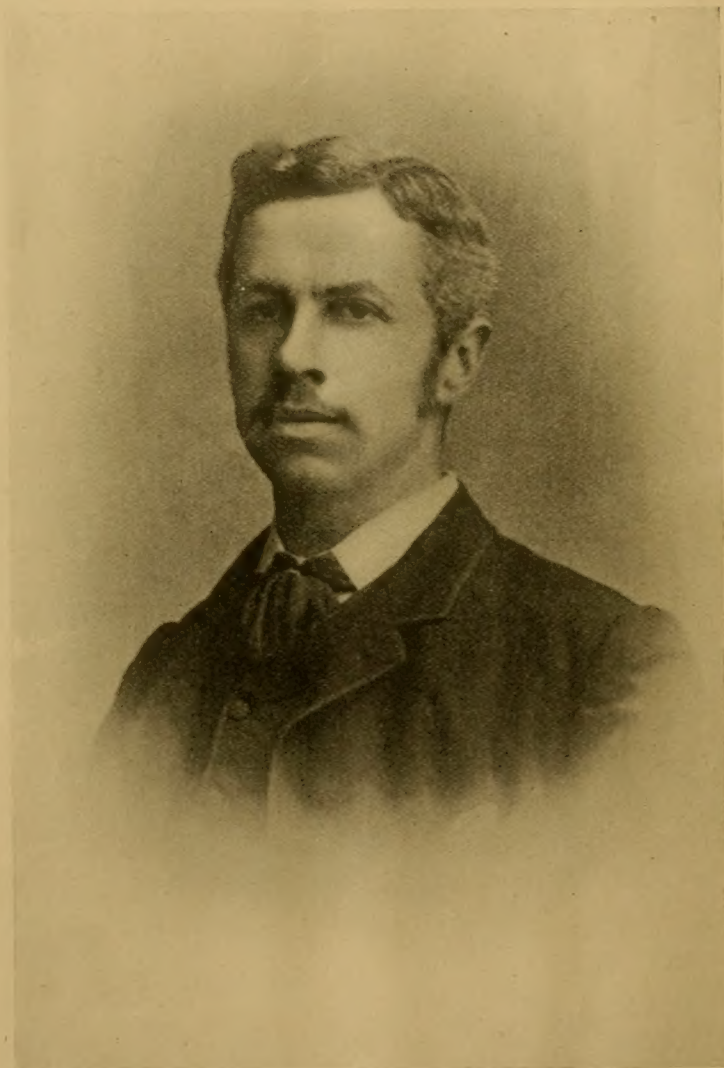
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— TO THE MEMORY OF —

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JULY 8, 1905.

THE SUMMER PRUNING OF FRUIT TREES.

JULY is admittedly the best summer month in which to carry out this operation. In the case of Apples in orchards, or in gardens where ample space is available, and where it is desired that the trees should grow into large specimens, summer pruning is perhaps of less importance than it is when considered in relation to trees in smaller gardens, where they have to be restricted to narrower quarters. There are four established and well-known systems of pruning hardy fruit trees, each bearing important relations one to the other—winter, summer, root pruning, and disbudding.

Pruning has been described as consisting in removing any part of a tree, either stem, branch, or root, with the object of repressing growth in one direction and directing the course of sap towards other parts of the tree which are better situated and constituted for performing the natural functions.

At no other time of the year is it more apparent to the cultivator, whether any of the above systems have been neglected, as at the time of summer pruning when the tree is in full vigour of young growth. Should the tree at this time be expending its energies in the production of rampant shoots and foliage then it may be concluded that root pruning has been neglected. If the body of the tree is filled with branches so numerous that its centre is made impervious to light and air, then winter pruning has been neglected. The scope of this pruning is specially to thin out overcrowded or ill-placed branches in the body of the tree. In the case of the main branches being overcrowded with wood buds then it is evident that disbudding has had little or no part in the cultural system adopted. It is only by timely and seasonable attention to each of these methods of pruning that perfect success in hardy fruit culture can be hoped for. When each receives the attention which is its due at the right time, then the art of pruning is very simple, and becomes one of the most enjoyable pleasures the fruit-grower has to pursue. There are two distinct systems of summer pruning, each advocated as the best by their respective champions, namely, the spur system and the long shoot one. These

two ways of summer pruning apply to Apples, Pears, Plums, and Cherries. The long shoot system consists in thinning out superfluous shoots from the main branches of the trees, leaving only as many side shoots as will furnish the tree with bearing wood without overcrowding. These shoots, as well as all the terminal ones, must be left their whole length without any shortening whatever.

This system applies more to the Apple and Plum than to the other fruits mentioned. Some very good cultivators declare it to be their conviction, after fully proving both systems, that this one is successful in producing the finer fruit and better crops. One objection to this system is that by leaving the annual shoots their full length the bottom buds of the shoot (which we believe to be the strongest and best) generally refuse to break into growth the following spring, thus forcing those branches to depend on the weaker terminal buds for the production of wood and fruit-buds the following year, leaving the base of the shoot barren. This, repeated in each shoot every year, results in the course of time in leaving the body of the tree bare, with the bulk of the fruit at the terminals of the branches only. It may be said that side shoots are encouraged in the body of the tree. This must be admitted; but they are so much shaded by the terminal growth of the outer branches as, in our experience, to reduce them to little value as fruit producers.

The other system, as we have said before, is the spur system, and this is preferable both in the bush and pyramid form of tree, more especially for gardens of limited extent. It consists briefly of having so many main branches to a tree (whether bush or pyramid) from 10 inches to 12 inches apart each way, according to the robustness of growth or otherwise of the tree until it is completely furnished and well balanced with fruitful main branches. By having these main branches thus widely separated abundant space is provided for the admittance of all light and air obtainable in the course of the summer, and without the influence of which in consolidating and ripening the wood it is hopeless to expect fruitful results.

Summer pruning under this system consists in stopping the lateral growth which emerges out of the main branches at the seventh or eighth leaf towards the middle or end of July.

The object of this is to concentrate the remaining growing force of the tree in strengthening the base of the shoot in order that it may produce in due time stronger and better fruit-buds. Some object to this method, because, without resorting to disbudding in spring, it is apt to produce a plethora of those lateral shoots. This is granted, but by timely attention to disbudding this objection falls to the ground. The terminal shoots are treated the same as the laterals, only instead of shortening them to seven or eight leaves they are cut back to within 12 inches or 15 inches of their base, according to whether the growth be strong or weak, the weaker being more severely cut. By some this system is considered to be of too restrictive a nature, hampering, as they say, the free development of the trees. All pruning, no doubt, tends in this direction, but when it is considered that a fair-sized tree would contain twenty or more main branches, and that each branch is extended every year 1 foot, making 20 feet for each year, with the added lateral growth to each foot of terminal, the annual extension of the tree is considerable. Apple and other trees of pendent growth, and which are inclined to bear more freely at the ends of the branches, would possibly succeed better under the long shoot system. We hope we have succeeded in making the way clear how to carry out both systems, and would advise those interested to try both methods, and prove to their own satisfaction which renders them the best service.

COLOURED PLATE.

PLATE 1277.

A NEW CYMBIDIUM (C. SANDER).

MR. MICHOLITZ, when exploring for Messrs. Sander and Sons in the Highlands of Cochin China in 1903, discovered this new cool house Orchid, of which he writes: "An altogether wonderful and new species of Cymbidium of great beauty, but very scarce, only a few plants being found, and at long distances apart. The spikes are of great size, many of them being a yard and three-quarters long, and having several immense flowers each, of a lovely white and rose colour, flushed with a deeper rose-red; the lip is a most striking feature, being extra large and most

charmingly and profusely spotted with crimson purple."

Prior to its discovery by Mr. Micholitz, dried flowers of this handsome *Cymbidium* had been forwarded to the Herbarium of the Museum in Paris, and it was thus that attention was first drawn to it. The interest which it has created led to a search being made and its eventual introduction into this country, shortly after which Messrs. Sander and Sons of St. Albans succeeded in flowering a plant from one of their importations, which when exhibited before the Orchid committee of the Royal Horticultural Society on February 14, 1905, received a first-class certificate.

The free and vigorous growth apparent in the early flowering of this handsome species proves what a useful *Cymbidium* has been introduced, and we feel sure that many new and handsome kinds will be obtained by the hybridist in the near future from the influence of this fine plant.

ARGUTUS.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

- July 8.—Crystal Palace Rose Show.
 July 11.—Royal Horticultural Society's Great Summer Show in the grounds of Chelsea Hospital (three days); Wolverhampton Floral Fête (three days); Harrow and Saltaire Rose Shows.
 July 12.—Bath, Fromby, Stevenage, and Thornton Heath Rose Shows.
 July 13.—Chipping Norton, Eltham, Helensburgh, Potter's Bar, and Woodbridge Rose Shows.
 July 14.—Ulverston Rose Show.
 July 15.—Manchester Rose Show.
 July 18.—Royal Horticultural Society's Meeting (Carnation and Picotee Show); Gloucester (N.R.S. Provincial) Rose Show.
 July 20.—Halifax and Dunfermline (two days) Rose Shows.
 July 25.—Tibshelf Rose Show.
 August 16.—Bishop's Stortford Flower Show.
 August 19.—Sheffield Rose Show.
 August 23.—Shrewsbury Floral Fête (two days).
 September 26.—National Rose Society's Autumn Rose Show, Horticultural Hall, Westminster (two days).

Bishop's Stortford flower show, which was announced to take place on August 9, is postponed to August 16.

Marguerites in the Isle of Wight.—Mr. E. Gray, gardener to Mrs. Morgan, Woolverton Manor, St. Laurence, Isle of Wight, sends a photograph showing a very fine plant of white Marguerite growing in the Manor Gardens. "It has been planted hardly three years," writes Mr. Gray. "It is growing almost directly on a large bed of freestone, and faces south-west. It was in flower almost the whole of last year, even during the winter, and is now one mass of bloom, and greatly admired by all who see it. The circumference of the plant is more than 20 feet. We also have a border filled with plants of *Cineraria stellata*, which have been in bloom since September, and even now the flowers are so numerous as almost to hide the foliage. They are planted in a position facing east.

Help for fruit growers.—The report of the Departmental Committee on Fruit Culture presented a few days ago to Parliament shows that fruit culture alone is making progress in the agricultural industry. The following important recommendations of the committee are

enumerated: A special sub-department of the Board of Agriculture and Fisheries should be established to deal with matters connected with the fruit industry. The suggestion is that there should be two branches of such a sub-department: (a) a bureau of information; (b) an experimental fruit farm. Horticulture should be taught in elementary schools in country districts, and such schools should have school gardens attached wherever possible. A large fruit farm should be established in proximity to the experimental farm, where fruit growers and lecturers could receive a practical training. Compensation should be paid on rules laid down by experts to an outgoing tenant of a holding under the Agricultural Holdings Acts on the basis of the value to the incoming tenant. A Bill should be passed in Parliament for facilitating the purchase of small holdings by tenants with assistance from public funds. The State should be empowered to lend money to landowners who have fruit on their estates, for the purpose of supplying the ready-money required for the payment of compensation at the determination of a tenancy. A more simple and uniform system of rates for fruit should be introduced by the railway companies. Building bye-laws in country districts should be modified so as to allow of the cheaper construction of cottages.

Narcissus poeticus Homer.—On glancing through the various *Daffodil* lists now appearing, one notices that the price of this poeticus remains almost stationary, although other new *Daffodils* of the same class are listed at much lower figures than last year. One reason for this might be if it were slow of increase, but this is not the case, as it increases as rapidly as the rest of the Poets. I prefer to think that it is the beauty of the flower that makes it maintain its price. I grow almost all the Poets *Narcissi*, but can hardly say that there is one, even among the very newest of them, that takes my fancy more than Homer when well grown. Large and refined, with firm, well-rounded perianth, and cup deeply edged with crimson, it is a plant that takes a lot of beating, either for exhibition or decoration.—F. HERBERT CHAPMAN, *Rye*.

Abelia floribunda.—This Mexican *Abelia* has been flowering on a low wall in front of the Orchid house at Kew, where many other tender subjects find a congenial home. It is widely dissimilar from the Chinese *Abelia rupestris*, which, as an outdoor shrub in the neighbourhood of London, is the most valuable member of the genus. Generally speaking, unless in particularly favoured districts, *Abelia floribunda* must be regarded as a greenhouse rather than a hardy shrub, though where it will succeed out of doors it is, as a rule, more satisfactory than under glass. It forms a freely branched shrub, clothed with small neat leaves, while the long tubular-shaped blossoms are borne in clusters at the ends of the branches. Their colour is a bright magenta-red shade. This species is said to occur in elevated regions in Mexico, but, as above stated, it needs protection in this country. It has been long known here, but owing to its tender nature is rarely seen. *Abelia rupestris* above alluded to forms a neat-growing twiggy shrub, usually under 3 feet in height, whose slender shoots are clothed with bright shining green leaves. The small funnel-shaped flowers are borne in such profusion at the points of the shoots as to cause them to droop. In colour they are white, shaded with pink. It is a delicate shrub, not at all adapted for holding its own against vigorous growing subjects, but for planting on rockwork or in a border of choice shrubs it is well suited. It possesses the great value of flowering nearly throughout the summer months.—H. P.

Rehmannia angulata.—I have met with this many times of late, and growing under different conditions; but nowhere has it made

such an impression on me as in No. 4 greenhouse at Kew, where there is just now a fine group of it in flower, the tallest specimens being quite 4 feet in height. Seen in a mass as it is there, this *Rehmannia* forms not only a very striking feature, but a most distinct one, as I know nothing with which it can be for one moment confounded; the large *Bignonia*-like rosy purple flowers at once arresting attention. It is, as is now fairly well known to most readers of *THE GARDEN*, one of Messrs. Veitch's introductions from Central China, through the medium of their collector Mr. E. H. Wilson, who, after a long sojourn in that comparatively unknown region, is back once more in this country. This *Rehmannia* is strictly a perennial, and though it may prove hardy in especially favoured districts, it is as a greenhouse plant that its claims throughout the greater part of England will have to be considered. It is of easy culture, succeeding well in ordinary potting compost, the principal care being to see that it gets a free circulation of air, otherwise a weak and attenuated growth, with pale tinted blossoms, will be the result. The length of time over which the flowering season extends is also another point considerably in its favour.—H. P.

Notes from Wisley.—There was recently in full bloom a large and handsome specimen of *Halesia*, or the Snowdrop Tree, in the Wisley Gardens. It is, unfortunately, planted in a somewhat secluded position, and unless specially pointed out many visitors may fail to see it. This is one of the most beautiful of shrubs or trees, and merits a trial in every garden where flowering shrubs are appreciated. There is elsewhere on a raised bank a fine specimen of the *Umbrella Pine*; but it seems as if it had seen its best days, as this *Pine*, like so many others, very handsome in youth, gets rather thin and shabby with age. *Nymphaeas* are blooming very freely. In too many cases these *Nymphaeas*, having for root run too much good soil, produce leafage out of all proportion to the flowers. At Wisley matters are well equalised, for whilst leafage is good, flowers are both very fine and abundant. It is hoped that some of the deeper coloured varieties may soon find a place in the ponds there. *Pæonies* have been, and are yet, a fine feature. These hardy plants seem very much at home in the deep sand of Wisley, the blooms being very rich in colour. Many visitors will prefer to select varieties for their gardens from growing plants as seen here, rather than from cut flowers at shows. There will be in the autumn a fine show of *Cactus Dahlias*, the plants have ample room, and like the soil admirably. A large collection of bedding or Tufted *Pansies* will enable visitors to make selections of the best for their respective purposes. Generally the plants are blooming profusely. Fern lovers will find in the gardens much to interest them, for these plants are just now in lovely leafage. There are extensive trials of edible Peas and Potatoes, and in one of the houses Carter's Surprise Tomato is, indeed, a surprise—a really splendid variety and cropper.

Flora and Sylva.—The June number of Mr. Robinson's beautiful monthly periodical is, as usual, replete with interest. It opens with extracts and comments thereon from Mr. Mervyn Macartney's thoughtful and welcome paper on "Garden Architecture," read before the Royal Institution of British Architects. The series of articles concerning the greater trees of the Northern Forest is continued; the subject is the Hornbeam, with a beautiful reproduction of Mr. Moon's picture "Pollarded Hornbeam." Mr. Bean describes the Chinese *Rhododendrons*, and Mr. Fitzherbert "Acacias in the South-west." There are many illustrations, but the coloured plates are the chief charm of the paper. The two for June are *Cymbidium Parishii* Sanderae and *Rhododendron Augustinii* and its white form. All gardeners should subscribe to this beautiful publication.

A beautiful single Rose.—The interesting notes on "Early Roses" in THE GARDEN of the 17th ult. contain a favourable reference as regards earliness to the pretty Rose known generally as *Rosa altaica*, but considered by the Kew authorities to be a form of *R. spinosissima*. It is a beautiful single Rose, which I admired some years before I grew it, and which more familiar acquaintance leads me to view with still greater favour. It has creamy-white flowers, larger than those of our Burnet Rose, and is altogether bolder than that plant. With me it blooms at the same time as *R. alpina* var. *Malyi*, a brilliantly coloured, almost crimson Rose, with which it contrasts well in colour.—S. ARNOTT, *Sunny-mead, Dumfries*.

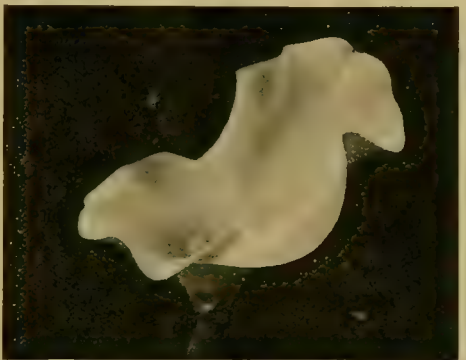
Rock edgings.—There are few edgings so satisfactory as rock edgings covered with suitable plants, none so interesting at all times, or more beautiful at certain seasons. The stones need not be elaborate, as the plants will soon cover them and will take away any bareness or roughness they may show at first. There is practically no limit to the number of plants available, so that one need not enlarge on this point; but I should like to say how necessary it is to make the paths broad enough at first to permit of the plants trailing over the edgings to some extent without unduly narrowing the footway. Unless this is done the paths will become too narrow, or the plants must be cut hard back, a practice injurious to the beauty of many of those most suited for covering such edgings. As an example of plants requiring good space for development, I may mention *Iberis corneifolia*.—S. ARNOTT, *Sunny-mead, Dumfries, Scotland*.

An uncommon shrub.—Among the more uncommon shrubs at the Temple show were some well-flowered branches of *Tricuspidaria dependens*, also known as *T. hexapetala* and *Crinodendron hookerianum*. It is a native of the low valleys of Chili and Valdivia, where it is said to reach a height of 10 feet or more, but under cultivation it will flower freely when not more than 3 feet high. The usual habit of this *Tricuspidaria* is to form a freely branched shrub, clothed with dark green leaves, particularly harsh in texture, about 3 inches long, and wrinkled at the edges. The flowers, unlike those of any other of our shrubs, are of a globular urn-shape, and hang suspended on long stalks. They are a bright crimson colour, and owing to their thick texture remain in beauty a considerable time. The buds, too, scarcely less attractive than the expanded blossoms, take a long while to develop. Like many other plants from the same district, this *Tricuspidaria* needs a liberal amount of atmospheric moisture, hence in such districts as parts of Devon and Cornwall it is quite at home, while Lord Annesley speaks highly of it at Castlewellan. A fairly moist soil containing a good proportion of peat seems to suit it best. It was introduced by Messrs. Veitch, who first distributed it a little over twenty years ago. It strikes root more readily than its harsh nature would suggest.—T.

The Mexican Orange Flower.—This handsome evergreen shrub (*Choisya ternata*) is still considered a tender plant, many giving it the protection of a greenhouse even in mild localities. This I found to be the case here six years ago. Three pot plants were in the greenhouse presenting a standard appearance, and branchless for a considerable distance above the pots. My impression was that given suitable surroundings the *Choisya* would bear this climate well, even as a bush plant. Selecting a spot well sheltered from north and east wind, with full exposure to the sun, I had one planted as an experiment, and the result has more than fulfilled my expectations. From this starved-looking specimen we have at the present day a beautiful shrub 4 feet 6 inches high, and the same in diameter, covered with fragrant blossoms, its deep green, glossy leaves contrasting with the

pure whiteness of its flowers. It is growing on a grassy border planted in ordinary garden soil, and except that the grass is kept down round its base for a distance of 2 feet it receives no other care or attention. The other two plants mentioned were planted out two years later than the first, and are consequently smaller, but both are in a flourishing condition, and promise to take as kindly to this Scottish garden border as to the warm hill-sides of Mexico. One plant has a northern exposure, the other an eastern. Both are well sheltered (but not overshadowed) by adjacent trees and shrubs from cutting winds, which are more harmful to them than many degrees of frost.—J. JEFFREY, *The Gardens, St. Mary's Isle, Kirkcudbright*.

New Sweet Peas.—The Rev. David R. Williamson writes to us as follows from Kirkmudien Manse, Wigtonshire, N.B., on May 22: "I have just received from Mr. William Cuthbertson (Messrs. Dobbie's Nurseries, Marks Tey, in Essex), some very fine flowers of the new Eckfordian Sweet Pea which bears my name. Mr. Cuthbertson, who may be regarded as a Sweet Pea expert, describes this special variety as being 'very distinct and fine.' Mr. Eckford has characterised its colour as indigo blue, but I think that deep violet would be an even more expressive description. Associated in bouquets with Scarlet Gem and Sadie Burpee, its effect is very beautiful. It should be grown in association with colours of this character for artistic effect. Mr. Cuthbertson has also kindly sent to me for inspection exquisite blooms of Gladys



RICHARDIA ELLIOTIANA WITH DOUBLE SPATHE.

Unwin, which is splendid for decoration; Romolo Piazzi (Eckford), a distinct advance on Captivation and Admiration types; Annie Stark, a very sweet variety; Scarlet Gem (Eckford), the finest introduction of its own richly effective colour; Florence Molyneux and Mrs. H. K. Barnes, very charming creations of Messrs. Dobbie and Co.; Jessie Cuthbertson, also raised by this eminent firm, probably the finest existing striped flower; and Black Michael, whose colour has been described by Mr. Eckford as 'a bright, shining, reddish maroon.'

Coronilla cappadocica.—At the present time this is one of the prettiest plants in the garden. The repeated change in nomenclature which plants undergo is extremely trying to the ordinary gardener, who has little time to keep pace with such alterations. Here, however, the change of the geographical specific name, which was formerly *iberica*, is really helpful, because this latter term was ambiguous. Nicholson's "Dictionary of Gardening" refers to the plant as a native of Iberia, which does not explain matters, because it is as applicable to the north-east of Spain, the basin of the Iberus or Ebro, as to the country between the Black and the Caspian Seas. By its present name, as given in the "Kew Hand List," we know without hesitation that it is a native of Asia Minor. My

plant came to me as a small-rooted cutting a few years back from the Bath Botanic Garden. I had previously grown it, but had lost it during an unusually wet spring. A dry bank or a well-drained ledge in the rock garden suits it to perfection. Stagnant moisture it cannot stand, and this should be guarded against in consequence. Each umbel or head consists of seven to eight flowers, which are bright yellow, the upper part of each being faintly veined with brown. There are from nine to eleven leaflets on each stalk, and these are of a glaucous green and slightly hairy. The whole plant is prostrate, and forms a most charming object, lasting in flower over a considerable period. Propagation is most easily effected if seed is ripened, but if a few of the stems be pegged down at once, and some light compost placed over them and watered occasionally, they will root in about a couple of months. It is apparently hopeless to try and move a large plant. Some of the Coronillas are so weedy that I ought to say that this species is not so; indeed, it is a most beautiful and desirable hardy plant.—ARTHUR GOODWIN, *Kidderminster*.

Richardia elliotiana with double spathe.—I send you photographs of *Richardia elliotiana* with a double spathe. The plant has only one leaf, the other having formed the large outer spathe, which was wholly of a yellow colour, the only traces of green being in the veins at the back of the spathe. The dimensions of the spathe were as follows: Outer spathe—Length, 9½ inches; width, 6½ inches. Inner spathe—Length, 5 inches; width, 4½ inches. The plant has since borne a small normal spathe. The photographs are by Mr. S. J. Batchelder, lecturer on botany at the Ipswich Higher Grade School, who submitted examples to the last meeting of the Royal Horticultural Society's scientific committee.—E. G. CREEK, *Westerfield House Gardens, Ipswich*. [We reproduce one of the photographs with pleasure.—ED.]

Fruit prospects in Scotland.—Within the past week or two the Scottish fruit crop prospects have taken a decided turn for the worse, this being caused by a recurrence of the drought experienced earlier in June, but which it was thought had passed away. Brilliant sunshine and drying winds, with intense heat, have been very injurious to the prospects of a good crop, and from almost every district the same unsatisfactory reports come. Strawberries are, in most places, an exception, but in some districts they have been injured also.

Kirkconnell Gardens.—The interesting old mansion and gardens of Kirkconnell, Newabbey, N.B., the seat of Colonel Maxwell-Witham, C.M.G., were visited on the 24th ult. by a number of the members of the Dumfriesshire and Galloway Natural History and Antiquarian Society, accompanied by their president, Mr. G. F. Scott-Elliot. The gardens contain a remarkably interesting collection of herbaceous plants and shrubs, which were studied with much interest by the botanists and flower-lovers of the party. Only a few of the old Roses for which the garden is noted were in full bloom, but a number of other things were much admired. Notable among these were the fine named *Dolphins*, the large bushes of *Kalmia latifolia* (not often seen so large), *Cypripedium spectabile*, the Kilmarnock variety of *Orchis latifolia*, the fine variety of the single *Martagon Lily* which is cultivated here, and which has been in these gardens for many years, with a great number of the newest herbaceous plants. On the garden wall *Asplenium septentrionale* was an object of interest to botanists, while the arboriculturists of the party were much delighted with the noble Spanish Chestnuts in the park. Before returning homeward Colonel Maxwell-Witham, Miss Maxwell-Witham, and Mr. R. Maxwell-Witham were warmly thanked on the motion of the president.

A New Lobelia.—The charming Lobelia tenuior, with its bright cobalt blue blossoms, has made great headway in popular favour within the last few years, and now at least one well-marked variety has appeared. This is Lobelia tenuior rosea, whose blossoms are of a rosy tint, as indicated by the varietal name. It was recently given an award of merit by the Royal Horticultural Society, and though decidedly less showy than the type, it furnishes a pleasing variation therefrom. Besides this, with a break once obtained, we shall doubtless see a wider range of colour before long, though whether any of them will prove equal to the typical form is at least a matter for doubt.—H. P.

THE EDITOR'S TABLE.

WE invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower, so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit, tree, shrub, Orchid, or hardy flower, and they should be addressed to The Editor, 20, Tavistock Street, Covent Garden, W.C.

HERBACEOUS LUPINS.

We have received a collection of these flowers in many pretty shades of colour from Mr. T. Smith, Daisy Hill Nursery, Newry. Among them were *L. nutkanus* bicolor, blue and white; *L. n. Beauty*, pale lilac; *L. polyphyllus* albus; *L. p. bicolor*, blue and white; *L. p. azureus*, rich blue; and *Distinction*, deep purple. Several forms of the Tree Lupin in lilac, yellow, sulphur, and white were also sent.

SEEDLING CARNATION FLOWERS.

Mr. A. M. Andre, Blairhoyle, Port of Monteith, sends flowers of a seedling Carnation. A very prettily striped flower, but not worthy of a varietal name. Excellent flowers can be raised from seed sown from the best strains.

A HANDSOME MILFOIL (*ACHILLEA LINGULATA* VAR. *BUGLOSSIS*).

Messrs. Bunyard and Co., Limited, Maidstone, send flowers of this handsome Milfoil. Its flower clusters are white and very showy.

SWEET PEAS.

Mrs. Forbes, The Tilburstow Lodge, South Godstone, Surrey, sends a charming variety of Sweet Pea flowers, gathered from plants raised from seed sown last autumn in the kitchen garden. Our correspondent writes that the plants have been in bloom for quite ten days.

AN INTERESTING LUPIN.

Lord Medway sends a fine form of *Lupinus nootkatensis*, a native of North-Western America. A form closely resembling it is figured in the *Botanical Magazine*, t. 2136, under the name of *L. nootkatensis* var. *fruticosus*. This species is a somewhat variable one, the colours varying from blue, purple, and yellow to white. The uppermost flowers are usually paler in colour than the lower, either yellow or white.

SEEDLING PANSIES.

From Ardross, Hill Top, Pannal, *via* Leeds, Mrs. A. Campbell sends some very pretty seedling Pansies, and asks if any are worth naming. There are so many beautiful unnamed

seedlings that we doubt if any of them are. That marked No. 1, purple, with the lower part of the flower orange brown, might be worth a name when you have fixed it so as to get it true. Our correspondent continues: "I also send a bunch of about twelve distinct varieties, self sown from an isolated plant. You will see, although quite distinct, the family likeness is very marked."

STRIPED FORGET-ME-NOT.

We have received from Mrs. Smith, Ascog, Bute, N.B., flowers of a striped Forget-me-not, but the striped form of *Myosotis sylvatica* is not unknown or unusual in gardens. It is not, however, so much grown as the self-coloured forms.

A SALMON-COLOURED FOXGLOVE.

From Logan, Stranraer, N.B., Mr. Kenneth McDonall writes: "I am sending you a few flowers of a salmon-coloured Foxglove, which I think may be a new seedling variety. I got the seeds from a wild plant of the same colour two years ago, a few of the seedlings only have come true to colour, the rest being of the ordinary pink and white colours. I have never seen this colour before in Foxgloves, and should be glad to know if it is a new variety."

[We have never seen this shade of colour in a Foxglove, and believe it to be a distinct variety. We doubt, however, whether it would prove effective in the wild garden. Save it carefully, and exhibit it at a meeting of the Royal Horticultural Society.—Ed.]

PANSIES AND MALMAISON CARNATIONS.

From Wern Dantzey, Paignton, Mr. James Petherbridge sends some pretty seedling Pansies and two Malmaison Carnations, both of which are seedlings from the white one; Nell Gwynne is a bright rose colour and the other orange buff, both, we should think, are well worth taking care of. The former has a strong clove fragrance, the latter is not scented. Mr. Petherbridge has another plant of the same parentage still to flower, and hopes for a white one. We should like to hear whether the flowers sent were obtained by intercrossing Nell Gwynne Malmaison with another Malmaison variety, or with a tree or border Carnation.

PINK ELDER AND CAMPANULA PERSICIFOLIA.

I send flowers of the pink variety of *Sambucus nigra*. It is very effective at this season, and yet I have not met with it in other gardens except once. I also send a large variety of *Campanula persicifolia* flowers, very large, light blue, full of flower-stems 3 feet high or more. [Very fine indeed.—Ed.] I had Backhouse's large white, and mine may be a seedling from that plant reverting to the blue type.

T. H. ARCHER HIND.

Coombefishacre, South Devon.

NEW VIOLAS FROM ROTHESAY.

A delightful gathering of these beautiful flowers has been sent by Messrs. Dobbie and Co., a firm that has done and is still doing so much to improve this beautiful and popular flower. With regard to culture, Violas or Tufted Pansies will grow—and grow well—in any good ordinary garden soil which has been enriched with manure. They are not particular as to situation, provided they are planted out early and get thoroughly established before the warm weather sets in. Autumn planting is largely practised in England, and with very good results. Of new roots raised and sent out by the firm in 1905, the following are well worthy of mention: Lizzie Storer, glossy black under petals, each tipped with lavender, upper petals clear lavender, a large and improved Mrs. T. W. R. Johnstone; Robert McKellar, richest crimson-violet, marbled with rosy violet and lavender, an improvement on General Hunter; Lady Grant, large white centre, slightly rayed and edged bluish purple;

John Cunningham, soft rose ground; striped with purple and maroon, upper petals a shade lighter than lower ones, of grand form and substance; one of the finest striped varieties, Effie, pure white, belted with violet and purple; a great improvement on Butterfly, Crieffie Smith, dense glossy blue, black under petals shading off to lavender at the edges, upper petals lavender, distinct eye and white brows; Mrs. Lindsay, creamy-white flower, edged heliotrope, grand for exhibition. Of 1904 varieties specially good are: William Hamilton, bright purple, beautifully streaked with rose; Robert Menzies, crimson-purple, slightly marbled lavender on upper petals; Maggie Clunas, large pure primrose self; Miss E. Fulton, white ground splashed and marbled purple and maroon, with flush of bronze over all, bright golden yellow eye; Miss Anna Callan, pale lavender; Mrs. J. Johnstone, dark rosy purple shading to rose-pink, upper petals rose. Among the general collection of older flowers are also some grand varieties.

THE NEW DELPHINIUM MRS. J. BRADSHAW.

Mr. Bradshaw, The Grange, Southgate, sends flowers of this beautiful new Delphinium, which, it may be remembered, received an award of merit from the Royal Horticultural Society last year. It is a flower of beautiful colouring, the outer florets of a clear sky-blue, and the inner ones of the same shade, but with a very broad band of soft lilac-mauve. The individual flower is very large, but not coarse, and the stem upright and lined with bloom. Mr. Bradshaw writes: "This year the plant has eight main spikes, with many side branches. It is an extremely robust grower, though not rank, as the plant does not exceed 5 feet in height from the base to the top of the spike."

THE ANNALS OF THE LITTLE RED HOUSE.—VI.

WORK seems to be never ending in a new place, and one undertaking leads to another. During our work at the pergola our attention was constantly directed to the state of the little orchard, and we soon saw that here, too, would be occupation for some time. Altogether there were a sturdy lot of trees just showing a fair crop of fruit, but among them were some evidently past their prime. The life of the Apple tree is much shorter than that of the Pear, and young trees bear better than really old ones. Some were therefore marked to be cut down in the winter. The boughs of all the trees were thickly covered with lichen, particularly, of course, on the weather side. This was due to overcrowding, for, when the branches overlap, air cannot reach the trees as it should. There was also a quantity of dead wood, and American bug, too, had taken possession to a certain extent. Steps were immediately adopted to exterminate this pest, which, if not stopped in time, spreads with fatal rapidity. Some people will tell you neither this nor the lichen does appreciable harm to your trees, but this is a mistake. Careless gardening is bad gardening, and nothing of this sort should be neglected. A little paraffin put on with a brush soon got rid of the American bug, and the lichen was scraped off the boughs of the trees very carefully with a little scraping tool with a long handle, invented by ourselves. There were a few useless Pears of the kind so often found in old orchards. I fancy they were used for making Perry, but, as they were not even good enough for stewing, they were condemned. The villagers knew the names of

most of the Apples, and we were glad to believe we had Ribstons, Sturmers, Golden Pippins, and Blenheim Oranges. When we tested the truth of this in the autumn we labelled each tree, and those we did not know were named for us from specimen fruits sent to the Royal Horticultural Society, an advantage given to Fellows.

We managed to get the orchard into better order, and then suddenly it dawned on us that the next thing was to provide a proper fruit room before the Apple harvest began. I propose in a future article to relate how we did this.

There was a Filbert walk encircling the orchards, and these trees, too, had been neglected in the matter of pruning, and when this was attended to we never failed in our crop of Kentish Cob Nuts. The May frost has only spared our Walnuts once. It was strange in so old a garden there should be no Mulberry trees, or Quince, or Medlar—all things beloved by bygone generations. We planted the two former, but made a mistake and planted the Mulberry tree in the autumn instead of the spring, and it died after a few months, not being settled before the first frosts of winter. I believe the Quince should be placed as near the water as possible. There was a nice piece of south wall, but rather low; this we raised by a few courses of bricks, and against it we planted two Peaches—Rivers' Early York and Noblesse, and two Nectarines—Elruge and Pitmaston Orange, and on an east walk we put an Apricot which this year has a good crop of fruit on it, but I always think that it is a toss up, if you grow Nectarines and Apricots out of doors, whether you or the insects get the fruit. The Peaches seem self-protecting.

Cherries on a wall are always satisfactory, for they generally fruit well, and you can protect them from the birds. We planted Early Rivers', May Duke, and Bigarreau Napoleon. On the north side we put some Morellos, but if these are planted in a south aspect and allowed to hang they give you delicious dessert fruit in late autumn. Here we put, too, some White Currants for a supply after the bush Currants have gone. On various bits of paling and wall we put a selection of dessert Plums—Transparent Gage, McLaughlin's Early Prolific (Rivers'), Jefferson, and Coe's Golden Drop, which have all done extremely well, and, being on a wall, we can protect them from frosts by coverings on rollers hooked on to laths above each tree.

There was not a Gooseberry in the garden, and we had a large choice of modern varieties, but we insisted on some of the good old Lancashire sorts that have, I am sure, never been bettered—Whinham's Industry,

Lancashire Lad, and Crown Bob; for large red sorts, Pitmaston Greengage, Red Champagne, and Yellow Champagne for quality, Early Sulphur for earliness, and Rough Red for jam. Keepsake, too, must not be omitted; it is a delicious fruit.

The Lancashire sorts are apt to sprawl on the ground unless carefully trained, and must be supported on stakes if they carry any weight of fruit.



EREMURUS HIMALAICUS.

As my space is limited, a few words on Currants must be deferred to the next article. AUGUSTA DE LACY LACY.

NOTES ON HARDY PLANTS.

A VALUABLE PHLOX.

PHLOX DIVARICATA VAR. LAP-
HAMIL, a handsome variety of the well-known *P. divaricata*, or, as it is often called, the Canadian Phlox, was shown in excellent condition by Mr. Amos Perry of Winchmore Hill at recent meetings of the Royal Horticultural Society and at the Temple Show under the name of *P. canadensis* Perry's variety. It is more robust than the type, reaching a height of 18 inches to 20 inches, with larger and deeper-coloured flowers, and comes into bloom nearly a month later. Its chief difference when compared

with the type is in the petals, which are rounded at the apex instead of being notched. It is also somewhat more hairy, resembling in this respect the closely allied *P. pilosa*. *P. divaricata* as a whole is a very variable species, which may be accounted for by the wide range it enjoys. It is found in damp, open woods from Western Canada and New York to Florida and Arkansas. The typical form has lavender-coloured flowers, with emarginate petals, and is figured in the *Botanical Magazine* at t. 163, having been introduced into cultivation in the year 1746.

In "Sweet's British Flower Garden," t. 221, a slightly smaller form is figured under the name of *P. canadensis*, but which cannot well be separated from the type, and it would be better to drop the name *P. canadensis* altogether. The two only represent extreme forms of the same plant, which might be selected from one batch of plants, and cultivation or local conditions undoubtedly play an important part in producing variations. *P. divaricata* var. *Laphamii* obtained an award of merit at the Temple Show, and a bed of it at Kew is now, in the second week of June, in fine condition and very effective.

W. I.

EREMURUS HIMALAICUS.

THE *Eremurus himalaicus* shown in the illustration has been five years in the open border with only a slight protection of Bracken in the winter, and has never failed to flower. This year the spikes are over 7 feet high. The garden is over 750 feet above sea-level. *Phormium tenax* is flowering at this altitude.

(Mrs.) COLTMAN ROGERS.
Stanage Park, Brampton Bryan.

THE BOG GARDEN.

THE bog garden is at all times interesting, but more especially at this period of the year. A few days ago, when visiting the beautiful bog garden of F. W. Harmer, Esq., at Cringleford, near Norwich, I was delighted to find the *Cypripedium spectabile* in all its glory. Here the plants grow to the height of 3 feet or more, with strong, healthy foliage, and bearing in most instances two flowers on each stem. Close to these I noticed a large clump of *Orchis foliosa* bearing twenty-seven fine spikes of its handsome rosy purple blossoms—a sight not soon to be forgotten. *Primula japonica* is also here by the thousand growing as vigorously as Cabbages, throwing up flower-stems 2 feet or more in height, and unfolding tier after tier of its beautiful crimson blossoms. This is an excellent bog plant, thriving anywhere and sowing itself freely.

T. B. FIELD.

GLAUCIUM FLAVUM TRICOLOR.

ALTHOUGH this fine plant has the foliage and the seed-pods of the Horned Poppay of our seacoasts, *Glaucium flavum*, commonly called *G. luteum*, it is so distinct and striking when in bloom that few would consider it only a form of that pretty native plant. One is perfectly safe in calling the colour "striking," seeing that it is well described as having orange and mahogany-red flowers, which distinguish it sufficiently from the pallid,

yet beautiful light yellow of those of *G. flavum*. It is as yet a comparative novelty, and is seen in very few gardens.

There is a plant of it in the garden of Colonel Maxwell-Witham, Kirkconnell, Kircudbrightshire, where it is at present in bloom, after flowering for a considerable time. It was introduced from Asia Minor, and is recorded in the "Kew Bulletin Appendix of New Garden Plants" of the year 1900 under the name of *G. luteum tricolor*. It will probably thrive in almost any soil, and is grown in the borders at Kirkconnell.

It is a mistake to suppose that our native *G. flavum* likes a dry, sandy soil, as many think from finding it in such. The roots extend deep down and into the moister subsoil generally to be found beneath the dry stratum of sand on the surface. Seeds of *G. f. tricolor* are obtainable from some seedsmen.

S. ARNOTT.

Sunnymead, Dumfries, Scotland.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

KERRIA JAPONICA.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Your correspondent (page 356) seems to have completely overlooked Loudon's remarks concerning this *Kerria*, for he asserts that the double form is not mentioned by that authority. In justice to that wonderful man I am induced to quote an extract from "The Trees and Shrubs of Great Britain": "*Kerria japonica*. A deciduous shrub. Japan. Height 3 feet to 5 feet. Introduced in 1835. Flowers yellow, March to June, and often all the summer. *Kerria japonica* flore plena. Flowers double. Introduced in 1700, and in very general culture in British gardens. . . . The single-flowered variety was, until 1835, only known through a solitary specimen received from Thunberg by Linnaeus, and preserved in the herbarium of that great botanist, now in the possession of the Linnean Society. It was after examining this specimen that De Candolle removed it from the genus *Corydalis* and formed that of *Kerria*. The double variety is generally planted against a wall, more especially north of London. It is easily and rapidly propagated by its suckers, and grows freely in any common soil." T.

DODDER ON FUCHSIA.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I think the photograph I enclose may interest your readers. It represents a standard *Fuchsia* on which is grafted a piece of *Cuscuta*. I had several of them, which caused great interest to people around. The *Cuscuta* is a leafless, twining parasitic herb, stalks twining contrary to the sun's apparent motion. It is of simple growth, and once on a plant stays there, and in the course of time kills it unless the scissors are freely used. It is easily grown, and a piece placed anywhere

on a stem of a plant will start growing in six hours. It is known here as the Dodder, and in neglected parts grows so thick that a man cannot walk through it.

Attleborough, Norfolk.

E. WATSON.

WINTER-FLOWERING CARNATIONS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I was much surprised at a note on the above subject which appeared in the indoor calendar of THE GARDEN for the 17th ult. by Mr. A. Osborne. He says "the autumn-rooted plants are ready for 6-inch pots." I would like to ask if they have not been a long time growing if they are now only ready for 6-inch pots. Does he intend to give them another shift? If not, what advantage does he claim by rooting them in the autumn. By what I can gather from his note he has been growing the plants about eight months before they are ready for 6-inch pots. I am afraid that hardly sounds profitable enough to recommend itself.

H. HALL.

WHY CLEMATISES FAIL.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I was very interested in A. R. Goodwin's note, "Why Clematises Fail," having for several years tried to get some of the best sorts to grow over a pergola. I have tried at least two dozen in different positions on the pergola. I have sheltered them with boards, only to see them grow in the spring and flag in the autumn, never reappearing. We have only succeeded in getting *C. Jackmanii* over the top. On a trellis we have had better results. Out of six planted two years ago we have Wm. Kennet and Nelly Moser flowering well. Duchess of Albany is growing well, but I am anxious to see it flower owing to its having died down once and started growing again from the bottom. *C. Henryii* is another that has not been seen for a year, and is making good growth this season. The trellis is close behind a row of *Thuja Lobbii*. The Clematis is shaded until late in the afternoon. The soil is very heavy; in fact, contains a good deal of clay. When planted no special care was taken beyond putting some sand and a little better soil in the holes. On the other hand, a great deal of pains was taken with those planted near the pergola. I believe that many failures can be attributed to slugs eating the bark. That is the only way I can account for our plants dying down and then starting again from the roots.

South Godstone, Surrey.

J. B.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—The interesting letter in THE GARDEN of the 17th ult. on "Why Clematises Fail" does not mention a very prevalent cause of failure in my own garden (Tunbridge Wells), namely, the splitting of a stem near the root, and the consequent drying up of the sap. If the fibrous stems of Clematis are exposed to great heat they are very liable to split. I carefully watch my Clematises, and directly I notice that one, or part of one, is drooping, I examine the stem and bind the damaged part with wool. If this is done soon enough the plant recovers. It is obviously best so to plant Clematises that the lower fibrous stems are protected from the sun.

E. F.

FORTUNE'S YELLOW ROSE AT GUILDFORD.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I enclose a photograph of a Fortune's Yellow Rose in flower in my garden. I estimate the number of flowers to be not less than 500. It is planted against a south wall about 7 feet high, and is allowed to grow freely and crown the top and invade the other side, a licence it plainly appreciates. I also send a photograph of an old



FUCHSIA WITH DODDER GRAFTED UPON IT.

[We reproduce the photograph of the Fortune's Yellow Rose, which shows how free this Rose is when in a position that suits it.—ED]

WATER GARDENING.

SMALL PONDS AND POOLS.

(Continued.)

HERE, in the case of many swamp-loving things, will be found ready made, quite as good, if not better places than, could possibly be prepared for them, while other spaces within the moist influence of the region can easily be adapted for others that we may wish to grow. Moreover, in the naturally silted bog there will probably be already that handsome groundwork of great tussocks of Sedge or stretches of Reed or Rush that will secure that valuable sense of unity and cohesion of the whole place, while at the same time they will make a distinct and easy separation between any such group of flowering plants as one may wish to see undisturbed by the view of the group that is next to follow.

It will be greatly to the advantage of a portion of this region if there is a copse-like growth of something that will give summer shade; for many are the lovely plants that are not exactly marsh plants, but that like ground that is always cool and rather moist. In the wettest of this would be a plantation of *Primula denticulata*, a grand plant indeed when grown in long stretches in damp ground at the edge of a Hazel copse, when its luscious leaves and round heads of lilac flower are seen quite at their best. Several others of the Asiatic Primroses like such a place better than any other. Next to it, and only divided by some clumps of Lady Fern, would be the equally wet-loving *P. sikkimensis*, and then a further drift of *P. japonica*.

The two latter kinds come easily from seed; *P. denticulata* increases so fast and divides so well that there is no need to grow it from seed. The type colour of *P. japonica*, a crimson inclining to magenta, is unpleasant to my eye and to that of many others, but seedlings of a much better, though quite as bright a colour, have been obtained, and also a pretty low-toned white, with many intermediate pinkish shades. The soft lemon colour of the hanging bells of *P. sikimensis* makes it one of the prettiest of woodland plants.

Two beautiful Indian Primroses of a smaller size, that also like a damp place, though less shade, are *P. rosea* and *P. involuérata* Monro; the latter seldom seen in gardens, though it is one of the most charming of hardy Primulas. These two gems, and our native tiny *P. farinosa*, should be close to the path in moist, mossy, peaty ground. Also near the path should be a good planting of the brilliant *Mimulus cupreus*, well known but much neglected; in appearance it would suit the neighbourhood of the Bog Asphodel, the latter in a rather moister hollow with *Sphagnum*.



ROSE FORTUNE'S YELLOW ON A WALL.

In the same cool and rather damp copse-edge the Alpine Willow-leaved Gentian (*G. asclepiadea*) will be glad of a place, and also the North American *G. Andrewsii* that flowers in October, and in the cool leafy mould of the copse the Canadian Bloodroot (*Sanguinaria*), *Trilliums*, and the fine Californian *Erythronium* (*E. giganteum*) should be in some quantity; for though they are also delightful plants to have even in a moderate patch, yet their true use is to be in such generous masses that they form distinct features in the woodland landscape. In this way of bold planting, no one who has seen them disposed in long-shaped rather parallel drifts, having some relation either to the trend of the ground, or the direction of the woodland path, or the disposal of the masses of tree or undergrowth, or some such guiding impulse, will ever be content with a less careful mode of planting. This applies equally to *Diffidils*, whose place will also be here as well as in other woody spaces. It is of less importance with the wood plants whose flowers are less showy, such as *Lily of the Valley* and *Smilacina*, though even with these some consideration of the form of the ground in relation to the shape of their masses will give much better grouping; the result showing as a piece of skilled work rather than as a bungle. As the ground rises, and, though still in cool woodland, is assured of perfect drainage, these dainty little woodlanders will be happy. Further back there will be Solomon's Seal, and here again White Foxglove. Presently there will be the wild Wood Sorrel and the native wood *Anemone*, and perhaps one of the larger-flowered single kinds of the same.

As the wood walk approaches the garden there will be the beautiful blue *Anemone nemorosa* and the robinsoniana and *A. apennina*, and near them the best of the three North American *Uvularias* (*U. grandiflora*) and the handsome white *Dentaria* of Alpine woods. Here also will be our own Purple Orchis and the Spanish Squills (*Scilla campanulata*) with the white variety of our native Wood Hyacinth or Squill, all closely related.

But woodland matters, though tempting, not being within the scope of the subject of the article, must, however regretfully, be let pass with but scant notice.

The old castle and its moat offer some pleasant places for gardening both in wall and water. In the case of the old Kentish house in mind the originally enclosed space is extremely restricted. The overgrowth of Ivy on the ancient walls, and the moat half choked with Flags and wild Water Lilies, tell the tale of the encroachment of Nature. Such a place seems almost best as it is; its own character stands out so strongly defined that it would be almost a shock to see the last new plants on its walls or in its waters. Rather one would be disposed to have only the oldest of our garden plants, Garden Roses, Rosemary, Lavender, Pæonies, and Irises, and in the water only native things; the Flowering Rush (*Butomus*), Arrow-head, and Buckbean. Incongruity in a case like this would seem to be akin to desecration.

Rocky pools, when cleverly designed and judiciously planted, may be among the very best of garden accessories. But unless there is some knowledge of the best ways of disposing the rocks, and some definite design, it is best left alone. In a pool garden in mind, the rocks, especially on the further side of the water, are admirably placed, showing their continuous natural stratification. But the garden was laid out by an owner who would not have tolerated glaring geological absurdities, and it was planted with things both rare and rightly used, a combination not often effected.

The garden must be seen at its best, not when the water is below the proper level, and leaves an unsightly edge of shelving bottom. It has somewhat of the character of the Japanese gardens, though it has an advantage over these in that it aims at simple beauty of rock and water and vegetation unhampered by the strict traditional laws that give the gardens of Japan a certain stiffness, and suggest a certain whimsicality to the Western eye.

In some large places there are bathing pools, but few have bathing pools that are beautifully planned. A bath in running water in the early sunlight of our summer days would be a much appreciated addition to the delights of many a good garden. It might be a beautiful thing in itself, with a long swimming pool; the lower end in sunlight; the upper giving access to a small

building, perhaps of classical design, standing in a grove of Ilex, or it might take such a form as that of the pool at the Villa d'Este, that wonderful Italian garden of wall and water.

Plants rooting under water, but close to the bank.—*Rumex Hydrolapathum*, *Phragmites communis*, *Scirpus lacustris*, *Iris Pseud-acorus*, *Alisma Plantago*, *Menyanthes trifoliata*, *Butomus umbellatus*, *Typha latifolia*, *Acorus Calamus*, *Sparganium ramosum*, and *Carex Pseudo-Cyperus*.

Plants for water 1 foot to 4 feet deep.—*Ranunculus aquatilis*, *Sagittaria sagittifolia*, *Hottonia palustris*, *Pontederia cordata*, *Villarsia nymphaeoides*, *Stratiotes aloides*, and *Aponogeton distachyon*.

Plants for rooting in land at damp water-side.—*Petasites vulgaris*, *Lysimachia vulgaris*, *Lythrum Salicaria*, *Gunnera scabra*, *G. manicata*, *Heracleum mantegazzianum*, *H. giganteum*, *Thalictrum flavum*, *Leucojum aestivum*, *Caltha palustris* (also rooting in water), *Iris laevigata* (syn. *I. Kämpferi*), *I. orientalis*, *I. sibirica*, *Leucanthemum lacustre*, and *Equisetum Telmateia*.

Trees for damp and water-side places.—*Populus* (*Poplar*) *canescens*, *nigra*, *tremula*, and *fastigiata*; *Salix* (*Willow*) *alba* and *russelliana*.

Shrubs for the water-side.—*Cardinal Willow* (cut down), *Golden Osier* (cut down), *Cornus sanguinea* (cut down), *Viburnum Opulus* (*Guelder Rose*), *Cydonia vulgaris* (*Quince*), and *Halesia tetraptera*.

NOTES FROM THE OLD PARSONAGE GARDEN, GRESFORD.

WITH these notes I forward blooms of *Lathyrus pubescens* and *Genista Hybrid*.

Lathyrus pubescens.—This beautiful Chilian Perennial Pea is perfectly hardy on warm soils. The plant from which the blooms were cut was raised here from seed, and planted against a south wall twelve months since. It grew freely during the winter, and braved 16° of frost. Its height is now 10 feet, its width 6 feet, and it has seventy spikes now blooming with more or less expanded pips. These do not represent all the spikes, for many more are showing. There are sixteen to eighteen pips on the best spikes, and the colour, as you see, is very fine.

Genista Hybrid, raised here from *andreas*, is exceptionally rich; a combination of pure orange and bright rich yellow, i.e., the crimson of *andreas* replaced by orange.

Ecremocarpus aurea, of which I sent spikes last year and a warm appreciation of its value, appears hardy. The old plants, unprotected, are in flower on a trellis.

Ecremocarpus coccinea, rich crimson, quite new, flowered here last year for the first time. Its foliage is characteristic.

Eremuri have been exceptionally happy, and have never been so fine. I am glad to find my opinion, expressed before in your columns, "that they should be lifted and replanted each year," confirmed also in your columns by a grower of large experience.

Scilla peruviana.—The blue or white vars. Not new, but an uncommon bulb, and well worth growing in a warm border.

Allium Schubertii.—From Palestine, a very choice thing, 12 inches in height, beautiful in leaf, in flower, and in seed. It has huge globose heads 7 inches across, and is most attractive in any border of rare flowers.

Oniscus conspicuus.—A plant rarely seen, but very telling in a large herbaceous border grouped, or as a single specimen. It is a rich blood-red Thistle from Mexico, here reaching 7 feet in height, and of very elegant habit. It grows freely, is a biennial, and with us ripens seed.

Primula Stuartii.—The purple variety is a very beautiful rich-coloured *Primula*, a native of the High Himalayas. It is hardy and very choice. This year it has flowered with exceptional freedom, but, unfortunately, its rarity prevents its presence in many gardens.

Asiatic Tulips.—The hot, gravelly soil of Gresford favours the development of these beautiful species. To those who can grow them *T. kaufmanniana aurea* should be much desired. When established it can only be described as magnificent.

Campanula michauxoides, a star-flowered *Campanula*, new, very light and graceful, about 5 feet high, should be grown in a choice collection clumped, or in a row with *Hazel* *Pea-sticks* supporting.

Bamboos flowering.—To our sorrow *B. Henonis* is flowering profusely in one part of the garden and not in another; so also is *B. Metake*. It remains to be seen if they survive the effort. Is not this unusual, as one variety generally flowers universally?

Papaver orientale Waterloo is quite among the best, very large, and a distinct shade of soft salmon scarlet.

Gentiana macrophylla cyanea.—A new and very choice *Gentian*. When grown under usual conditions this beautiful blue variety of *macrophylla* is most desirable.

Campanula mirabilis.—I have been asked often if this is not an impossible or an overrated plant. My experience was with the first batch of seed imported; it germinated freely. The seedlings were potted and placed in a cold frame, and in due course they were planted out. None flowered till the fourth summer; some waited till the fifth, but the result was worth waiting for; a spreading mass of hundreds of light blue bells 2 feet across, rising to an elegant tapered spike 18 inches in height, quite distinct from any other *Campanula*. Seed ripened freely, and self-sown plants are not rare. Now I treat it more vigorously, and it looks as though it may flower the second year; certainly the third. It is very hardy—generally, not always, dies after flowering.

Campanula chrysoflora is very refined and elegant, although not everyone's choice, for the colouring is a transparent green, slightly yellow. It is a thick spike, about 12 inches in height, and seeds freely; both are new and somewhat rare.

P. H. MILES.

THE LILIES.

LILIUM SPECIOSUM (Continued).

WHITE FORMS.

VAR. *ALBUM NOVUM*.—The new white *L. speciosum*. Bulbs as in *Kraetzeri*, but less compact, and there is always a large cavity near the old flower-stem that makes their shape one-sided.

Stems green, quite erect, forming huge masses of roots from their bases. Leaves oval, with prolonged tips, pale green. Flowers numerous, borne on long foot-stalks, opening three weeks before those of *Kraetzeri*, always nodding, the petals pure white, the three inner ones half as broad as long, much recurved, forming a perfect sphere when fully developed. A cushion of raised processes surround the green star at the throat. Anthers tinted apricot. A very distinct form.

Var. vestale is a selection of *album*, with pure white flowers. A garden form of Continental origin for a long time lost, but now reappearing as *Crown Princess*. Flowers late.

COLOURED FORMS.

Var. compactum.—A dwarf, high mountain form, with small bulbs, stems 2 feet high, and three to five reddish purple flowers, with narrow and fully reflexed petals. Flowers early. Selected from Japanese wilding *L. speciosum*.

Var. cruentum.—A magnificent form, and in our judgment the best of the highly coloured *speciosums*. Bulbs globose, deep red, very large, scales numerous; stems stout, purplish, tinted bronze above, stiffly erect, the buds held erect, deflexing on expansion; leaves short and rigid. Flowers six to ten, broad petalled, rich ruby-red, heavily dotted crimson, showing through on both surfaces, the tips alone being white. A cushion of crimson-tinted petaloid processes occupies the centre of the flower, almost hiding the green star. They do not expand to the fullest extent, and they are the last to bloom. A selected wilding.

Var. macranthum.—A large form of roseum differing in its broader crimson-tinted flowers, quite 8 inches across, and broader crimped leaves of pale green colouring. A selected wilding of Japan.

Var. Melpomene.—Not the original *Melpomene* of Hovey, which was a *speciosum auratum* hybrid, now lost, but a highly-coloured selection of Japanese *L. speciosum rubrum*. A very beautiful form. Bulbs compact, globose, very deep red; stems dark purple, 4 feet to 7 feet high, much thickened below; leaves dark green, broadly ovate, slightly reflexing. Flowers, six to twelve, dark blood red, dotted carmine, distinctly edged white, and with the usual crimson-tinted processes occupying the centre of each flower. Precedes *cruentum* in order of flowering.

Var. nanum.—A small-flowered, slender-growing roseum, the first of all the *speciosums* to flower, and scarcely worth extended cultivation.

Var. punctatum.—The spotted white *L. speciosum*. A pretty form, but apparently incapable of the finer development so characteristic of many other forms. Bulbs, leaves, and stems as in *album*, but smaller. Flowers white, of small size, dotted on the inside with large spots of pale rose-pink; anthers apricot-tinted. Excellent for outdoor culture as it flowers early.

Var. roseum.—A pale coloured *speciosum*, whose bulbs are longer than they are wide, often contracted at the middle, coloured a dull pale red. Stems pale green, 4 feet to 6 feet high, stout, not erect; leaves long and narrow, pallid, flaccid, recurving; flowers deep rose, without a defined white border, often marbled; anthers dark brown. Superb form is the Japanese form, much finer than the older roseum. The bulbs are similar, the leaves half as broad as long, very wavy; the flowers broad petalled, coloured deep rose, with a well-defined white margin.

Var. rubrum.—Most of the dark coloured *L. speciosum* are selections of this. It is always variable, and collected lots contain all the varieties described as Japanese.

Var. Schrymaakersii is an early-flowering form of Continental origin, probably a selected seedling. It has large, rosy-coloured petals, dotted purple, and shaded with lilac near the tips. It flowers with the choice *album novum* in the open. Many other forms are grown in various countries.

G. B. MALLETT.

(To be continued.)

THE ROSE GARDEN.

ROSE ARDS ROVER.

SEEMING that there is such a preponderance of pink and pale-coloured Roses in all sections, every really good brilliant red or scarlet is sure of a welcome. The above Rose has a glorious colour, and must be very useful, although the name "Rover" is rather misleading. That the variety will grow vigorously there can be no question, but it is not so vigorous, for instance, as *Reine Olga de Wurtemberg*. We want a Rose of the sturdy nature of the latter, with the brilliant colour and exquisite buds of *Ards Rover*. This will make a beautiful standard, but for such a purpose I think *François Crousse* is better; in fact, this latter is in many way similar to *Ards Rover*.

ROSE ELECTRA.

ONE cannot praise this Rambler too much. It seems so decidedly superior to *Aglaia*, although there is room for both sorts; the latter appears in bloom about a week earlier than *Electra*. It matters not how we grow it—pillar, spreading bush, or standard—its lovely sprays are always attractive. This Rose, when fully out, is almost a pure white, and its flowers lift themselves quite erect, which adds much to its value as a decorative variety. A mingling of this variety and *Carmine Pillar* would be delightful, or with one of the bright-coloured *Penzance Briars*, such as *Anne of Geierstein* or *Meg Merrilies*.

ROSA RUGOSA FIMBRIATA.

It is difficult to believe that this is a Rose. It is such a departure from the *rugosa* race, and, in fact, from all Roses. The general impression is that it is a *Primula*, and it is only the growth, foliage, fragrance, and buds that suggest a Rose. The flowers are of a very dainty shell-pink in the centre, merging to palest blush outside. The petals are prettily serrated. This fact and its semi-double blossom remind one of the *Primula*. It is said to be the result of a cross between *R. rugosa* and *Mme. Alfred Carrière*. Although the flower of *Fimbriata* is so small, the plant grows with great vigour, so much so that it is suitable for the wild garden or as a free shrub Rose.

HARRISON'S YELLOW BRIAR.

THIS delightful Rose, one of the oldest now in cultivation, having been raised in America some seventy-five years ago, is quite distinct in its way. Although not so rich in colour, it is much superior to *Persian Yellow*, for it will bloom more freely, and the plants succeed better after transplanting. In fact, the *Persian Yellow* is such an indifferent grower that it hardly seems worth while growing it, whereas *Harrisonii* is a source of much pleasure to lovers of early Roses. Whilst resembling the Scotch Roses in shape of bud and blossom, also to some extent in leaf, and appearing as it does at the same time, there is, of course, no close affinity between them, although the two species, *R. pimpinellifolia* and *R. lutea* are placed following each other by Professor Crepin. *Harrisonii*, as is well known, is a double form of *R. lutea*. This latter is some centuries old, and its copper-coloured sport (*R. punicea*) also, and it seems remarkable that there should have been only this one offspring, so far as one can find out. To see *Harrisonii* at its best there must be a quantity of young wood. Shoots produced last season are yielding this year the finest flowers. Although one may make an excellent hedge of this Rose, and it is seen well when grown as a standard, I think one of the best methods of growing it is to peg down its shoots as if layering for rooted plants, and allow them to remain thus two or three years. All these layered shoots will the second year be a mass

of bloom, and also there will be fine healthy shoots from the centre of the plant also. It is a very beautiful sight to see a good mass of this Rose growing as described, and a few clumps and other old-fashioned kinds treated in the manner described are very charming in shrubbery borders, provided they are allowed plenty of space. A few plants of *Harrisonii*, *Persian Yellow*, and *Austrian Copper* should be potted in autumn, selecting well-ripened one year old budded plants, and giving them 7-inch or 8-inch pots. Do not prune them beyond removing extreme ends. They make most charming plants to introduce to the conservatory during April and May. Fine pillars could be produced of *Harrisonii* if its growths were trained upright from the beginning.

FREE-HEADED STANDARD ROSES.

THE ugly style of tying down the shoots of standard Roses in order to make drooping heads is now happily almost a thing of the past. I often wonder why someone does not take up the culture of those grand old sorts upon standards that were the rage years ago. I refer to *Coupe d'Hebe*, *Blairii* No. 2, *Chenedole*, *Charles Lawson*, *Juno*, &c. There is nothing among modern Roses to compare to them during the time they are in bloom. If walks of such standards were established, alternated with modern perpetual flowering varieties such as *Grüss an Teplitz*, *Mme. Alfred Carrière*, *Conrad F. Meyer*, *Mme. Isaac Pereire*, *Longworth Rambler*, &c., together with *Dorothy Perkins*, *Crimson Rambler*, *Electra*, *Félicité Perpétue*, &c., there would be no feature in the garden to compare to this walk. It would be needful in order to grow them well to trench the ground two spits deep, and allow the plants ample space to display their individual character. I have in mind such a walk with a few towering pillars interspersed, but without the incongruous ropes or chains which one never finds in Nature. Some good clumps of roots here and there placed for the support of the newer *wichuraiana* Roses, that vie with the multifloras in their wealth of blossom and brilliance of colouring.

ROSE MME. LOUIS PONCET.

THIS is a Tea Rose of a most delightful colour, or rather mixture of colours, for it resembles *Souvenir de Catherine Guillot* in this respect. Coppery rose may convey some idea of the tints, but with many of these modern Teas it is quite impossible to give a useful description. There are several sorts now that would mingle well together; for instance, the one under notice, also *Souvenir de Catherine Guillot*, *Souvenir de J. B. Guillot*, *Mme. Eugène Régal*, *Beauté Inconstante*, *Margherita di Simone*, and *Mme. René de St. Marcean*. The best plan would be to devote a small bed to each variety. These Roses are lovely objects upon half standards or dwarf standards. They are very thin, scarcely more than semi-double, but they compensate for this by the profusion of blossom. They must be viewed as rather tender Roses, and it is well to mould them up well in November with dry earth or burnt garden refuse.

ROSA RUGOSA MME. GEORGES BRUANT.

WE are apt to depreciate this lovely Rose, and chiefly for the reason that *Blanc Double de Courbet* is a purer white; but the very profusion of blossom would commend it to the true Rose-lover. A bed of it is now a mass of buds and open flowers, and the fragrance is delightful. The blossom has the pale buff-white shading as seen in *Mme. Alfred Carrière*, but the general effect is white. It makes the best show when five or six plants are grouped together. The first season cut back very little, the next prune the one year old wood fairly hard, so that the third year there is a bed about 5 feet high quite a

mass of bloom. *Mme. G. Bruant* also flowers freely again in August and September, but it produces no seeds like the single white and single pink. P.

CLIMBING AND RAMBLING ROSES.

IN old gardens we occasionally see the remains of an arbour or shady Rose-covered verandah, so popular in bygone days. These for a time had to give place to the large-flowered Hybrid Perpetuals and Teas, perfection in individual flowers being apparently the object. More recently, especially since the advent of the *Crimson Rambler*, the climbing and rambling Roses are coming to the front with increasing force. Why the Rose is so sparingly used in the beautifying of the garden is difficult to understand. How many of the ugly walls and unsightly buildings near the mansion, or the bare walls of the villa or cottage might be clothed by the judicious use of a few climbing Roses! Writing of this brings to my mind the quaint little village of Sonning on the banks of the Thames between Henley and Reading, in which there is scarcely a house without a Rose or two on its walls, and many more in the gardens around.

Compared with the arbours of bygone days, there seems to be a somewhat artificial look about many of the pergolas and arches of the present time. No doubt much of this is due to the newness of the work, and will gradually disappear as the lines become concealed by Roses. Iron supports are often used, chiefly because of their strength and durability. The initial outlay would be much greater than for wood, but if painted occasionally to keep it from rusting would last a lifetime, whereas it would be necessary to renew the wood in a few years. The shoots are more readily fixed to wood supports, the surface being rougher and usually larger than the iron. Consequently, the shoots and buds do not get rubbed so much, which is often the cause of canker. Iron is also subject to greater extremes of cold and heat. It also looks more artificial than wood till completely covered. On estates of any size it is usually easy to obtain small tree trunks, Larch, or other poles of suitable size with spurs on, providing more support than bare poles. The amateur can generally obtain wood poles more readily than iron. The base of the poles should be tarred or creosoted before being placed in the ground. Tree stumps grubbed up and the roots placed uppermost are excellent for use in what may be termed the "Wild Rose Garden." Where banks have to be clothed, a simple method is to drive in stakes, leaving 1 foot or more above ground, to which the Roses can be tied down. For pillar Roses only one post is necessary, the breadth of the Rose being about the same from the base to the summit. Pyramids are even prettier, and require three posts fixed in the shape of a tripod. Roses grown in this way are beautiful in any part of the garden, in the mixed border, on the green turf, or a row on either side of a broad gravel walk. The varieties from which to select are almost endless, and it will only be possible to mention one or two of the best for each position.

A good selection of varieties can be obtained from any well-known nurseryman's catalogue. For pillars *Una*, a large-flowering single white hybrid Briar; *Tea Rambler*, coppery pink; *Queen Alexandra*, *Dorothy Perkins*, *Crimson Rambler*, and *Paul's Carmine Pillar*, single fine large flower. Arches, pergolas, and verandahs are all very effective when covered with suitable Roses, such as *Aglaia*, a gem when established, yellow in colour; *Mme. d'Arblay*, a double white Musk hybrid; *Rosa arvensis*, single white; *Flora*, an evergreen rosy flesh, an old favourite, and still one of the best; *Félicité Perpétue*, evergreen, creamy white; and *Euphrosyne*, rose-pink. In warmer situations, on walls and houses, the more tender varieties, such as *Maréchal Niel* and the climbing varieties of *Teas*,

including *Devoniensis* and *Niphetos*, can be grown. For a north wall there is no more suitable plant than a *Gloire de Dijon* Rose.

WICHURAIANA ROSES.

Essentially of a trailing habit of growth, this plant carpets the ground with a mass of dark shiny green foliage. The type flowers in August; the varieties from it, however, flower rather earlier. They are excellent for covering banks, and for the front of the taller growers. Some make useful climbers, of which *Dorothy Perkins* is an excellent example; but this seems destined to be superseded by *Lady Gay*, so finely shown at the Temple Gardens.

WILD GARDEN.

Many unsightly plots of ground can often be turned to excellent use as a wild Rose garden. No better example of this is required than the Rose dell at Kew, near the Pagoda. On the site of what I believe was once a gravel pit and rubbish heap has been formed a veritable paradise of Roses. Irregular terraces have been

built up on either side, with old tree stumps placed roots uppermost. A grass path some 12 feet in width winds through the centre, as well as two side paths leading into it. Here huge masses of such sorts as *Flora*, *Psyche*, *Crimson Rambler*, *Dorothy Perkins*, *Thoresbyana*, *Fellenberg*, *R. moschata*, and heaps of others can be seen in all their glory.

CULTIVATION.

One great thing in the successful cultivation of Roses is to have good soil to start with. November is one of the best months for planting. Cut back the following spring after planting to obtain a good groundwork on which to start. The majority will require little pruning after the first year, thinning out being all that is necessary. Cut out the weak growths, and remove some of the older ones if the bushes become very thick. This should be done soon after flowering to allow free access of air to ripen the growths.

A. OSBORN.

THE WILD APPLE.

LADY BINNING sends a charming photograph showing the wild Apple tree on the banks of the River Eden, near Mellerstain, in Berwickshire. This illustration shows one of the most beautiful of our native trees in flower, and teaches the lesson that the beauty of flowering trees is lost when the planting is confined to a crowded shrubbery.

THE FLOWER GARDEN.

AMONG THE SWEET PEAS.

NO one can dispute the fact that the Sweet Pea is far and away the most popular annual plant in cultivation in our gardens. And it is likely to remain so. Every season does not bring the same success or the same failure, but it requires a vast number of the latter to damp the ardour of the man who has once entered seriously upon the growth of this charming flower. Give him a moiety of success in the first season, and he will never let a season pass without having a certain number of rows or clumps in his garden.

And it is this unwavering allegiance or enthusiasm that we want, especially in a season like the present, when the weather has been distinctly peculiar in its capriciousness. There were weeks of nice growing weather followed by a long spell

cut off, and this alone would be sufficient to account for the unfortunate propensity of some plants to throw their buds. The weather, I know, cannot always be justifiably blamed for this trouble, but it is just as good a stand-by when Sweet Peas fail or when Roses or Chrysanthemums fall below our expectations.

Bud dropping is as frequently due to over-feeding as it is to the weather, there being many persons who apparently think that to give Sweet Peas too much food is an absolute impossibility. To rush things along at the last moment all sorts of stuff are used, and the strength of these increases with the inexperience of the growers, instead of the reverse; there is no doubt that under this treatment things move rapidly, but it is almost invariably in the direction of throwing off the buds. Then the grower anathematizes the weather!

As far as I have seen plants grown from autumn-sown seeds have done remarkably well, and it seems to me desirable that this form of culture should secure far more supporters among

the amateur fraternity. There are disadvantages, of course, but the compensations are rich. The autumn sower has mice and birds and slugs to contend with, but so also has he in spring, and, after all, such troubles were made to be overcome, and in this the determined cultivator seldom fails entirely. As a general rule I have given up regarding slugs as enemies of Sweet Pea growers, and am gradually coming to look upon them as benefactors, for they thin out the plants. Notwithstanding the way that writers have hammered away at the necessity for thin sowing, it is still common to find ten



WILD APPLE TREE IN BLOOM ON THE BANKS OF THE RIVER EDEN, BERWICKSHIRE.

(From a photograph kindly sent by Lady Binning.)

of dry, harsh, north-east winds which sapped the energy of plant and man; then came a heat-wave with the temperature at anything from 100° to 120°; night-frosts of more or less severity afforded a change. After all these variations came the rain, which did an immensity of good in the home and southern counties, but scrupulously avoided the midland, eastern, and some extreme western counties a little longer. No, the season has not been as favourable as one would like to see; but now we are in the midst of plenty, for the plants have passed capably through their varied trials, and are producing grand flowers in profuse abundance.

There have been, unhappily, numerous complaints of buds dropping, and these have come from all quarters of the country. It is perfectly safe to ascribe it to the weather in the present circumstances, for there can be no doubt that the supplies of food to the plants have been

plants where there should only be one. Therein lies the value of the slug, who manages to eat a few before the wrathful cultivator puts a sudden end to his career. Thick seeding and neglect of thinning have to answer for many evils.

The charm of the Sweet Pea lies not alone in its remarkable adaptability to culture under practically any conditions of soil and climate, but to the persistence with which properly managed plants will bloom. One would not like to affirm that the flowers from old rows or clumps are as fine as those from plants just coming into the first cutting, but they are still excellent for buttonholes and home decoration. It is at these stages that we get the full value of special feeding. As has repeatedly been said, any convenient liquid manure can be employed, but there should always be alternations of pure water, so as to ensure sweetness in the soil. Not

only have we to attend to this, but also to picking, so as to force the plants to concentrate their energy upon flower production, and not permit it to be diverted towards the development of seeds. Continued floriferousness is substantially aided by surface hoeings or good mulchings of short manure, the latter being preferable, as they provide food as well as conserve the moisture in the soil.

HORACE J. WRIGHT.

CELOSIAS FOR POTS AND BORDERS.

CELOSIA PYRAMIDALIS when well grown is a most useful plant for a greenhouse. In the early stages of growth a rather warm temperature is necessary, but after attaining maturity, or the full development of the flower, a cool temperature is best.

It is wonderful how long a period these plants will retain their full beauty if kept in good health. I have thrown away plants in autumn to make room for other kinds which were really very fresh and bright. I have never tried to keep the plumes in a cut state, but do not doubt that they could be preserved for a long time in vases.

Good seeds quickly germinate. They should be sown thinly in a pot well drained with clean crocks and filled with sandy soil, even thoroughly decayed leaf-soil and sand will do.

Where there is plenty of bottom-heat at command sow the seeds early in spring, in the absence of bottom-heat defer the sowing until late in the season. The results will be more satisfactory if this is done where cool treatment has to be given right from the beginning.

The seeds are small, hard, and dark coloured. Bury them a little more than one-eighth of an inch deep, plunge the pot in sawdust, Cocoanut fibre, or ashes up to its rim, and do not place any glass or paper over the pot so that the seeds may germinate and appear above the soil in the dark. This is not necessary. I like to have the young seedlings exposed to the full light from the first, then there will be no danger of drawing up the tender plants too weakly.

The soil for the first potting should be rich, chiefly composed of fibrous loam and leaf-soil; the greater portion of the fine soil should be sifted out of the loam, only the fibrous part being retained, and its place taken by sweet leaf-mould. To these two add some very coarse sand and an 8-inch

potful of dried cow or horse manure to each bushel of compost.

Pots 3½ inches in diameter are the most suitable for the first potting. The insides must be quite clean and the potting-soil slightly warmed. Preserve every bit of root found attached to the seedlings, and only press the compost lightly around the roots. Still retain the young plants in a warm temperature on a shelf near the glass, and maintain a medium amount of moisture in the house. Rapid growth should be the aim of the cultivator. Generally, the young seedlings early show the colour of the forthcoming plumes, but if they do not at the first potting they will at the second. A check to growth must not occur or the plumes will prematurely form. Very large

plumes and few leaves are not desirable; a good specimen is one which bears fairly large, bright plumes amidst a wealth of leaves.

A similar compost should again be used for the second and third repottings, with the addition of a small quantity of soot; and the soil should be pressed down more firmly around the roots. Keep the foliage free from red spider by occasional syringings with tepid water, and feed the plants, too. Throughout the summer and early autumn their beauty should be enjoyed in the greenhouse. For bedding-out Celosias are finding much favour.

Good as the colours are under glass, they are richer in the open air. During the past summer two large, round beds occupied by these plants have been admired by all who saw them. Other kinds of bedding-plants, though good, were outclassed by these brilliant subjects. The plan to follow is to grow the plants well in pots and transfer them to the beds in May. AVON.

NEW AND RARE PLANTS.

A SHOWY BORDER PLANT.

ASTER SUB-CÆRULEUS is a valuable early summer-flowering border plant with large flowers, the ray florets being rich bluish mauve, and the disc yellow. It is a very handsome and attractive flower, and has been finely shown by Mr. Amos Perry, Hardy Plant Farm, Winchmore Hill, N., on several occasions recently. The Royal Horticultural Society gave this Aster an award of merit at their last meeting. It has been confounded with *A. diplostaphioides*, but the two are quite distinct, though with regard to the shape of the flowers and freedom of bloom they have much in common. *A. diplostaphioides* has a purplish centre, but in *A. sub-cæruleus* it is a beautiful rich yellow, which sets off the mauve colour of the florets to perfection. T.

A NEW VALUABLE HARDY FLOWER (ASTER SUB-CÆRULEUS).

(Given an award of merit by the Royal Horticultural Society recently.)



GARDENING FOR BEGINNERS.

SIMPLE HINTS.

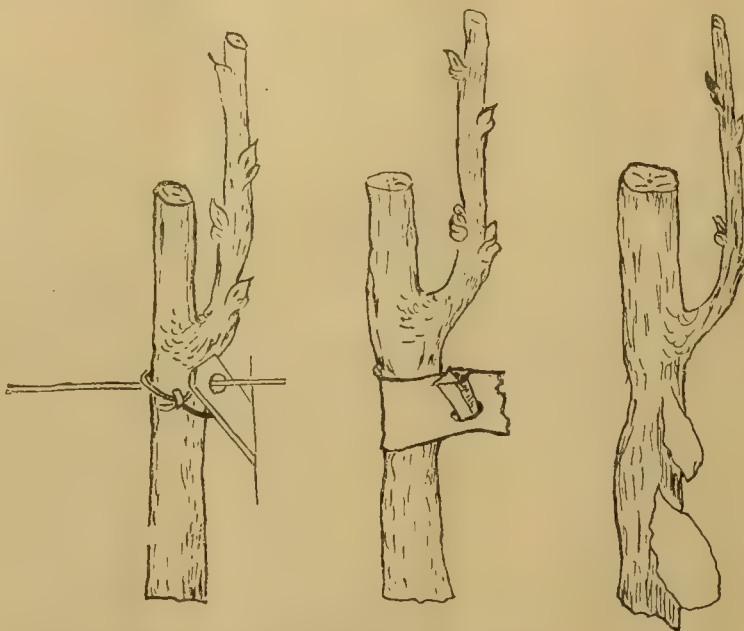
TYING TREES, SHRUBS, AND PLANTS.—While a certain amount of tying is very necessary in a garden, and is beneficial when properly carried out, it can easily be made to do harm instead of good. The illustrations show the evil effects of ties which have been made too tight, and so have cut into the branches. Care is needed when nailing fruit trees, Roses, and climbers to walls by means of shreds, so that each shoot has sufficient room to develop properly. In tying fruit or other trees and shrubs to stakes with wire or shreds or thick string a piece of rubber should first be placed around the stem so as to prevent its being cut by the tie. The material used should be tied twice round the stake so that it will not move. The stakes should be driven firmly in the ground, otherwise they will sway about in the wind and loosen the tree, thereby preventing the latter from gaining a firm root-hold.

The great thing to bear in mind when tying shoots, and especially young ones, is that they must be allowed room to grow, and the tie or shred must be left sufficiently loose for the purpose. Considerable damage is often done to young shoots that grow very quickly, such as those of the Vine, Peach, Plum, Rose, and shrubs against walls or on trellises by neglecting to allow room for development when tying them up. One of the evil effects of tight ties is shown in the third illustration, which represents a branch afflicted with the malady known as gumming.

Some Beautiful Ivies—The Ivy in any and every form is a beautiful plant, and there are many varieties which have been added from time to time as new forms are evolved. Both the green and variegated forms make beautiful edgings to beds, and they look best when of considerable width. It is one of the easiest plants to propagate from cuttings of the young shoots at any time in the shade, either under glass or outside, and in nurseries the delicate variegated kinds are commonly grafted on roots of the Irish Ivy. It may be used to cover screens in rooms, and the variegated kinds are splendid for the front of window-boxes. Ivies are so easily grown that one wonders they are still so expensive in pots, when one wants plants of a particular kind to cover a wall. It is true it will take several years to form a well-developed plant in a pot, and the time has to be paid for. In many nurseries Ivies are grown through the early stages under glass, and the freshness and beauty of the glass-grown plants are very noticeable. The large-leaved kinds make beautiful pyramids trained to stout stakes. Such kinds as *dentata* and *roegneriana* are better for this purpose than the small-leaved varieties.

The best evergreen Ivy to my mind is Emerald Gem. It has the dark green tint of the Irish Ivy without its coarseness of leaf and growth. The best variegated kind for covering a wall outside or a screen indoors is *Maderiense* variegata. Gold Cloud is very beautiful in

spring, and for some time after making new growth, but the older leaves are pale green. *Purpurea* is very distinct, and when one has a mass of it the leaves are useful for mixing with flowers in winter when other good foliage is not so common. *Caenwoodiana* has single wiry growth with neat foliage, and clings closely to walls or other supports. It is one of the neatest plants, too, to form edgings to walks, as the growth does not require much trimming. The Ivy is the only plant that will thrive and be happy under the dense foliage of the Horse Chestnut, and our small-leaved native species is the best for the purpose. It has been said by those who have not had much to do with it that Ivy on walls makes them damp. Ivy may kill trees, but unless neglected it will not make a wall damp. To keep Ivy in trim on walls it should be cut in close with the shears early in March, and when that attention is given annually it will make a damp wall dry.



EVIL EFFECTS OF TYING WITH WIRE AND TIGHT SHREDS.

GUMMING.

Rose Lamarque.—This is a beautiful Rose for bouquet work when grown under glass without fire-heat. It is an old variety, the flowers are produced in clusters, and are beautiful when in bud. It is also good outside on a warm wall, sheltered with a few sprays of Bracken during a severe winter. It does not grow so freely as the Dijon Teas, but every shoot produces flowers.

Some Campanulas.—What lovely groups the Peach-leaved Bell-flowers make at this season, and the flowers having long stout stems are so good for cutting. There are double-flowered forms of both the blue and white, but I like the singles best. This is, of course, a matter of taste. They must not be left too long in one place if fine spikes of flowers are wanted, and the soil for these strong-growing Campanulas should be well broken up and manured.

Madonna Lilies.—These are doing better with us this season than we have had them for some time. They dislike removal, and the bulbs should not be covered deeply. If it is necessary to

transplant do it in August as soon as the old flower-stems are ripe. We have them in full sunshine and also partially shaded. All are good. If they are to be planted in heavy land work in some grit round the bulbs.

Pyrethrums for Vase Decoration.—Both single and double *Pyrethrums* provide excellent material for vases, bowls, and other receptacles, and although largely grown in most gardens, the flowers are not so often used as they deserve to be. Many colours are available, pure white, yellow, crimson, carmine, purple, amaranth, rose, blush, and many intermediate shades. Those of the palest tones serve the purpose of making displays under natural light, those of the deeper and richer shades of colour, in which that of carmine may be instanced, provide a most glorious array of colour under artificial light. The flower has a long stout footstalk, so that the matter of

arrangement in a vase or any other vessel of large size is simple. The foliage can be used for some of the smaller receptacles, in which, of course, the effect is very beautiful, but where a good length of stem is necessary, as in the case of large vases, other foliage must be sought for. Foliage of a hardy kind may be used, and prettily tinted pieces of Hornbeam will be found useful substitutes, and there are many other useful subjects of which the hedgerows provide an abundant supply. We prefer to arrange the single and double flowers in separate vases; but pleasing contrasts may be made by their use in association with one another.

Foam Flower (Tiarella cordifolia).—When spring is joining hands with early summer, one of the best plants is the Foam Flower (*Tiarella cordifolia*). It is at home in any cool, rather moist, half shady position in rich, light soil, and delights in a vegetable mould of which rotten wood forms the staple. It is a beautiful thing that should be in every garden, and a charming companion to *Myosotis dissitiflora*, while its leaves persist throughout the winter taking on from autumn onwards a fine red colouring. It is nearly allied to the *Heucheras*.

History of the Sweet Pea.—This beautiful and now variable hardy annual is found wild in Italy, near Naples, and also in Sicily, and there is a coloured illustration in the second volume of the *Botanical Magazine*, published in 1787, t. 60. At that time only two varieties were known besides the type, viz., the Painted Lady Pea, red, white, and rose-coloured, and another with pure white flowers. The type as figured by Curtis has a dark crimson-maroon standard, lilac petals, wide spread, and delicately veined, while the keel is pale rose, and there are only two flowers shown on the stalk. Curtis remarks that "there is scarcely a plant more generally cultivated than the Sweet Pea," and he notes also "that it is not very tender, since seedlings reared in autumn frequently survive our winters." He recommends both autumnal and spring sowings in pots, so as to be sheltered

in hot-bed frames for early blooming, as well as in the open borders. He says "that pot culture was a common practice of the gardeners, who raise them for the London markets, in which they are in great request." The Sweet Pea came into notice in England about the year 1701, the first year of the eighteenth century, as Phillips says, "when it blossomed, probably for the first time, in the celebrated garden of Dr. Uvedale, at Enfield, in Essex, where Petiver first saw it with Dr. Plukenet, and soon afterwards it appeared in the Physic Garden at Chelsea, and elsewhere around London.

Sweet Peas, Autumn Sown.—Many hardy annuals are much the better for autumn sowing. They seem to gain immense strength during their slow progress in the winter months, and the vigour of the plant when it has made its full growth in late spring or early summer is only equalled by the size and quality of the bloom. But in no annual garden plant is the gain of autumn sowing so conspicuous as in the Sweet Pea. For instead of having to wait till July for the crop of bloom, the autumn-sown plants are in full flower in the earliest days of June, and the flowers are much larger and longer stalked than on those sown in spring, and much more welcome as the only thing of the climbing Pea kind then in bloom. Perhaps the seedlings would not be sure to stand the winter in the colder parts of our islands, and even south of London a very cold winter may now and then destroy them; but the advantage of securing this fine early bloom in most years is well worth the risk of an occasional loss. The Peas are sown in a shallow trench, in a double zigzag line, giving each plenty of room, not less than 3 inches from Pea to Pea. They will be about 4 inches high to stand the winter. If unusually cold weather comes a protection of Spruce boughs or anything suitable can be used. When they are making strong growth in spring they can be slightly earthed up and are much benefited by some not over strong manure water.

Balearic Sandwort (*Arenaria balearica*).—For clothing the cool base of rockwork no plant of low stature is more satisfactory than this little Sandwort. It runs into the joints and over the prominences almost like a coat of thick green paint, so closely does it cling and so clearly does it show the form of the stone beneath, while in early June its hosts of little flowers, large for the size of the plant, deck it with sheets of purest white. It readily sows itself, and in a year's time a chance seed will grow into a pretty tuft.

Getting Rid of Ants.—To get rid of ants use some weak ammonia frequently. Round the walls place some sweet liquid, such as treacle, or beer and sugar, near the stems of the trees; they will forsake the later for the liquid. In winter remove loose top soil, burn it, and replace with new.

The Cantaloup Melon.—This Melon used to be a good deal grown in most gardens forty or fifty years ago. The flavour was always good when well ripened. I expect one reason why it disappeared was that it was too large for one dinner party, and a cut Melon loses its flavour and cannot be served up a second time for dessert. The Cantaloup Melon is still grown for the English market by foreigners, who send it over in large numbers. It is hardy, vigorous, and the flavour is good when well ripened. Those who are fond of Melons and want a large fruit might give it a trial.

Mulching Fruit Trees.—Apples on the Paradise and Pears on the Quince must be mulched with manure to nourish the roots. Being near the surface they are depending upon the help given, and if the weather continues dry and hot watering may be necessary. If the

trees are much crowded with fruit (and these surface-rooting trees, if properly cared for, generally bear freely), a good many of the small fruits should be taken off. Plums are not, so far as I have seen, a heavy crop this season, as, though there was plenty of blossom, the frosty winds thinned them. It is not difficult to thin Plums if crowded.

Parsley for Winter.—The end of June or beginning of July is a good time to sow Parsley in some position where it can be easily covered when the cold weather comes. Sow thinly in moistened drills, and thin to 6 inches apart. Thinnings may be planted at the foot of a wall to come in for use in the early spring, when Parsley is always scarce. Parsley sown now has not the same tendency to run to seed as the spring-sown plants.

Double Cropping.—Where many Potatoes are grown it may be necessary to plant Greens or perhaps sow Turnips between the rows of Potatoes. When Potatoes are planted 3 feet apart no great harm is done if Brussels Sprouts or Broccoli are planted between the rows. It is mainly a question of deep culture and manuring. It is useless double cropping on poor land, and after the Greens come off Celery or late Peas may follow.

Young Horn Carrots.—These are always appreciated, and should be sown in succession from February till the first week in July. The earliest sowings should be made on mild hot-beds in January or February, covered with glass. The outside sowing should take place in February, and later on a warm border. The last sowings for winter use are being made now, and should be protected in winter by Bracken, as the roots keep best in the ground. Horn Carrots should be sown thinly in drills 8 inches or 9 inches apart. Very little thinning is required, as the roots are fit to use when quite young.

GARDENING OF THE WEEK.

FLOWER GARDEN.

ATENTION must now be paid to raising various perennials from seed. This, in many cases, is the most effective method of maintaining the vigour of the plants and producing finer flowers and in greater number. Happily, many families come fairly true from seed. In order to get strong plants that will pass safely through the winter unprotected and bloom satisfactorily the following summer and autumn, no time should be lost in sowing. Among plants that should be thus raised are

DELPHINIUMS.—Prepare beds in the reserve ground by well breaking up the soil—a fairly heavy loam if available. Drill in the seeds thinly, covering lightly and watering as occasion demands. Keep a sharp look-out for the slug, for this pest has a particular liking for succulent seedlings of these Larkspurs, and will quickly clear a bed as the tiny plants appear above ground if not unceasingly watched. Dress lightly with soot and wood ashes occasionally while moist, and shade slightly from bright sunshine until the plants are well up and have formed the rough leaf. They will then be stronger to withstand the heat.

PYRETHRUMS should also be treated on the same lines, and so should

CAMPANULA PYRAMIDALIS and similar subjects. These classes of plants, forming as they do an important part in many a herbaceous border, and producing fine and successive bloom and effect, should not be neglected and a season lost through not paying timely attention to sowing. All flowering stems of Delphiniums and Pyrethrums should be cut down as fast as the blooming is over. Well water the plants, and feed them liberally to induce the production of an acceptable second crop of bloom during late autumn. The same applies to many other early-flowering perennials.

SWEET PEAS.—Go over these frequently, picking off faded blooms and pods as fast as they form, lopping a strong growth here and there at intervals of a few days to induce branching and a succession of bloom. Keep them well supplied with water, adding a handful of guano or some quick-acting fertiliser occasionally, and tie up any growths inclined to sprawl about and push their way out between the sticks.

THE SEED-BED containing Wallflowers and other biennials must be kept moist to encourage free germination,

and the tender seedlings as they appear should be shaded for a few hours every day during the prevalence of heat and drought.

At the present much time and labour have to be expended in watering, syringing, and mulching recently-planted stock and old-established plants or clumps that are carrying a heavy crop of foliage or flowers, or both. The latter, if dry, will require a large quantity of water to moisten the ball of roots and soil thoroughly, and if the plants are to benefit fully by the application it must be a thorough one. Subsequent sprinklings and syringing of leaves and stems are very helpful in arresting rapid evaporation and freshening up plants in distress.

The Gardens, Tan-y-bwlch, North Wales. J. ROBERTS.

INDOOR GARDEN.

MALMAISON CARNATIONS.—As the plants pass out of flower select some of the best shaped one and two year old ones for growing on. Remove all flower-spikes and dead leaves. Pot on, using a compost of three parts fibrous loam (taking great care that it is free from wireworm), one part leaf-mould and dried cow manure, adding mortar rubble and coarse sand sufficient to keep it open. Use clean pots and good drainage. See that the balls of the plants are moist, and pot fairly firm. Stand the plants in a cold frame and shade from bright sunshine. Syringe the plants morning and evening on hot days, and water sparingly till the roots are entering the new soil. Layering can also be proceeded with as the plants become available. A very suitable place for the operation is in a frame where bedding Calceolarias and such-like plants have been growing during the winter, the soil being very sandy. Just round the layer a little finely-sifted soil may be placed, in which leaf-mould predominates. Layer only strong, vigorous shoots. It is better to place the taller plants on their sides than to plant the balls deeply. Shade the frame for a time. Little water will be needed at the root for a week or two, syringing overhead several times a day being sufficient.

PLANTS STANDING OUTSIDE.—The chief object in placing pot plants outside is to obtain strong, firm, well-ripened growth for flowering. Spray the plants overhead morning and evening with the garden engine during dry weather. If only a few plants are grown an ordinary garden syringe can be used. This encourages the growth of the plants and also checks the attacks of insects, especially red spider. Assist the Azalea indica vars. not repotted with a little soot water. Use rain water for hard-wooded plants, especially Ericas and Epacris. Avoid overcrowding the plants. Support with stakes any growths at all likely to be broken by the wind. With such a variable climate growers are never certain of fine weather or the absence of cutting winds.

GENERAL REMARKS.—Sow a batch of Schizanthus seed for late autumn and early winter flowering. Encourage the growth of young Bouvardias. Sturdy plants will be found very useful after the older plants have finished flowering. Pot on the young Gardenias into 6-inch pots. These will be quite large enough for flowering them in the first year. Cut Hydrangea Hortensia plants back after flowering, and place in a house where a little warmth and moisture can be given. Repot if necessary when the growths are an inch or two in length, and give liquid manure to the plants not potted. To obtain the best flowers of *H. paniculata grandiflora* a warm atmosphere and plenty of moisture are necessary. Syringe several times daily, and feed liberally with manure water. If the seed pods are kept picked off Fuchsias, and occasional doses of liquid manure given, they will flower freely all the summer. The later plants can be given a shift into a larger-sized pot.

EUPHORBIA PULCHERRIMA.—A few more cuttings may be put in if short plants for furnishing are in demand. When rooted it is necessary to admit air to the propagating case gradually, as they are very liable to flag, causing them to lose the leaves, and nothing looks worse than plants with a few leaves and the bracts at the top of the plant.

Royal Botanic Gardens, Kew.

A. OSBORN.

ORCHIDS.

THE PHALANOPSIS.—By this time nearly all the green-leaved Phalanopsis—as *P. luddemanniana*, *P. sumatrana*, *P. violacea*, *P. tetraspis*, *P. Marie*, and *P. speciosa*—will have done flowering. Some of them will continue to bloom for a considerable time, but it is advisable to remove the spikes after the flowers have been open a few weeks. Some of the kinds, especially *P. luddemanniana*, frequently produce young plants adventitiously on their old flower-stems, therefore if it is found desirable to increase the stock, it is best to cut off the flowers only, leaving the spike whole. When the young off-shoots begin to form, the spike may be fixed with wooden pegs around the base of the parent plant, and as soon as the young plants have become well established and have made a pair of leaves of their own, they may be taken off and treated as separate individuals. If it is desirable to make a fine specimen, these embryos may be left on the original plant. All of the species mentioned may now be placed in larger receptacles if necessary, or they may be supplied with fresh material about their roots. After root disturbance, &c., place the plants near the roof glass in the hottest division, and a very shady position should be given them, as these green-leaved species are very susceptible to injury from the least sunshine. Thrips sometimes infest the leaves of Phalanopsis, and if unchecked will quickly disfigure them. My practice is to sponge the foliage periodically, whether there be thrips present or not, with clear rain water, as cleanliness is advantageous towards the successful cultivation of these plants. For further

cultural directions of Phalenopsis see the Orchid calendar for M 13. The interesting

CYPRIPEDIUM CAUDATUM has just done flowering, and the plant may now be repotted. If healthy it will require a pot two sizes larger. The old compost should be entirely removed from unhealthy plants, the dead roots cut off, and the plants put into a pot just large enough to hold the remaining roots, using less compost than for the healthy specimens. This species is not often met with in good condition, sometimes through too much heat and insufficient air. Another mistake is to place it in the Cattleya house, where the light is too strong for it. The best possible position for it is in a cool, shady corner of the intermediate house, where it will get plenty of fresh air and a suitable temperature. The curious

UROPEDIUM LINDENII is closely allied to the Cypridium caudatum, and it should be treated exactly the same. When growing and rooting freely both plants should have frequent and liberal waterings. The flowering season of the dwarf-growing

CYPRIPEDIUMS, as *C. niveum*, *C. bellatulum*, *C. concolor*, *C. Godefroye*, and the new *C. Sandersi* is now past, and the present is a good time to repot them; but those plants that do not require larger pots, and the drainage is in good condition, the old soil need only be removed and fresh material added. Repotting should not be done more often than is absolutely necessary, because the roots, being very brittle, frequently snap off by the least touch. When repotting becomes needful do not attempt to turn the plants out of their pots, but carefully break the old pot, taking it away piece by piece, and pick out the old compost. If this can be done without disturbing the drainage, less injury will be done to the roots. Place the whole mass into a larger pot or pan, allowing plenty of space to fill up two-thirds of its depth with pieces of broken brick, limestone, or thick crocks. The collar of the plant should be on a level with the rim of the pot, and the soil, consisting of good fibrous loam, adding plenty of broken crocks, and well mixing them into the soil to make it more than ordinarily porous. The fresh material should be made thoroughly firm about the roots, as these have a decided tendency to ramble among hard substances. The plants should be suspended, or elevated from the stage, well up to the roof glass of the Cattleya house, and those that have recently been repotted will require to be watered very carefully, affording only sufficient to keep the surface of the compost just moist. When growing freely these plants delight in abundance of water at the root, and, instead of affording water in the usual way with the watering-can, we dip the pots nearly up to the rim into a pail of tepid rain water each time they appear to be the least dry. Avoid water lodging in the centre of the growths or in the axils of the leaves, as it sometimes causes them to decay. During the summer months some growers spray the foliage lightly overhead, and in some cases the plants luxuriate under such treatment, but much depends upon the structure of the house and the conditions of the atmosphere therein.

Burford Gardens, Dorking.

W. H. WHITE.

ROSE GARDEN.

SEASONABLE HINTS.

In many gardens in the South and Midlands the first blooming will be on the wane, but in the North they should be at about their best.

WHERE ROSES ARE IN FULL BLOOM give liquid manure. Use the hoe freely as much to aerate the soil as to check weeds. When cutting the flowers the growth should be spared as much as possible. We have to pay dearly for long stemmed Roses the next season, as our plants receive such a check that they rarely recover satisfactorily.

WHERE LONG-STEMMED FLOWERS are required in quantity some Malletti and seedling Briar stocks should be annually planted, and these budded with a few of the best varieties, such as Mrs. John Laing, Mme. Abel Chateaus, Ulrich Brunner, Pharisier, Caroline Testout, Mrs. W. J. Grant, Frau Karl Druschki, &c. Rows of such arie placed in the kitchen garden can be used for cutting, and our best decorative plants spared. Where the plants have finished their flowering they should be looked over, and the shoots cut back a few inches to a nice prominent eye. If the centres of the plants are crowded, some of the weak wood may be removed at the same time. A teaspoonful of guano to a plant will help them considerably for a good second display. The guano should be stirred into the soil, and if no rain comes in two or three days give a good watering with clear water, from 1 gallon to 2 gallons of water per plant, if the soil will quickly absorb it. Many of the

TEA AND HYBRID TEA ROSES begin sending out new shoots long before the first bloom has developed, so that practically they are never at rest. This second growth, however, will require nourishing, and good waterings once a week of liquid manure are of great benefit. The drainings from a heap of cow manure diluted with equal quantities of water are very good. Tea Roses are also partial to soot water, a bag of which could be thrown into a barrel of water and allowed to steep for a few days. This could be used alternately with the cow manure, diluting it in the same manner. All watering should be done in the evening; do not forget to give some to

ROSES ON WALLS, also to rambler Roses that are not actually in bloom. These latter benefit much by lightly forking up the soil occasionally, and if much exposed a thin mulching of manure should be applied. The more these rapid-growing Roses are looked after the better will they respond in glorious trusses of bloom and healthy foliage. Next month some of the old wood should be removed, but we shall refer to this again in a future issue.

MILDEW may be kept in check by sulphide of potassium, as mentioned in THE GARDEN of June 21 last. Some day we may have a mildew-proof race of Roses, and I am sure rosarians will welcome them.

ROSES BUDDED last summer will be now in their greatest beauty in many gardens. All who contemplate exhibiting Roses would do well to plant a few stocks each season. Planted in February and March upon well-drained land, flowers of the highest excellence are the result. There are a few varieties that are always best upon "maidens," as these one year old plants are termed. A large proportion of Roses seen at exhibitions are cut from maiden plants. This applies more especially to Hybrid Perpetuals and some Hybrid Teas. The true Teas yield marvellous blooms upon maiden standards or half standards, and every exhibitor should have a goodly number of each.

BUDDING the stocks will demand attention now. As a rule the stocks are ready before the buds. Should there be an opportunity to procure buds from pot-grown plants or from walls, standard Briars may be budded at once. If August happens to be rainless these stocks soon begin to dry up, and the greatest success attends the operation of budding when the stocks "run well," i.e., when the sap is flowing freely. Budding may be learnt quicker by watching an old hand at the work than from any printed directions. A few essential points to remember may be helpful. See that the buds are ripe. The wood should be firm, and the buds plump. If the eyes are slightly on the move it is better than having them too dormant. Growth that have borne a flower which has just faded are about the ideal kind of wood. Do not bud from the long sappy flowerless shoots. Tea Roses start very quickly to grow again, so that one cannot always wait for the bloom to develop. Cut the buds in early morning or evening. Remove foliage at once, leaving a small piece of the leaf stalk to aid in the operation of insertion. Hold the shoot upside down in the left hand. Place the edge of the knife about a quarter of an inch from the leaf stalk, and cut gently beneath the eye, then rend off with the bark adhering. Remove the wood with a jerk, and see that germ of eye is intact. If there be a hole beneath the eye this bud has lost its germ. Now place the knife in the Briar shoot quite near the main stem, and make an upward cut just to sever the bark. This cut should be about 1 inch in length. A cross cut will make the cut like a letter T. Raise the bark near the cross cut just sufficiently to slip in the bud. The protruding piece of bark is then removed, and the bud bound up tightly with budding cotton or raffia. In binding up have the leaf stalk looking outward, also the eye or bud should not be covered. The other parts of the cut should be bound all over. In three weeks the ties may be loosened, and in about five weeks removed. The Briars are left like this until February. If the bud has failed, which may readily be seen by its black appearance, then there will still be time to insert another just above the first. Ripe buds, stocks full of sap, and tight binding are the chief factors to success. Do not bud in showery weather.

LAYERING may still be carried on. The operation is almost identical with Carnation layering, only that the layers are placed slightly deeper.

FRUIT GARDEN.

MELONS—Plants swelling their fruits will require stimulants if the flavour is to be of the best. Cow manure in liquid form is an excellent stimulant for Melons. At this time of year the growth increases at a rapid rate, so that it is necessary to frequently go over them and cut out all lateral growth. Where fruit is ripening manure must be withheld, and clear water given only moderately. Keep the atmosphere dry and allow a free circulation of air both day and night. Plants in cold frames which are in flower will require careful handling if an even set of fruit is to be had. The frames must never be closed during this process. Setting of the flowers must be attended to daily at noon. Avoid over-watering the plants, only giving them sufficient to prevent flagging. The end of the present month will be late enough to sow seeds for the last batch, unless they are required later than the month of October, which is very unlikely. The houses at that date are, as a rule, in demand for something of more value.

FIGS.—A second crop of fruit may be had from the earliest permanent trees provided they are in a healthy condition and free from red spider. When the first crop is cleared the trees should be vigorously syringed both morning and afternoon. If red spider is present syringe two or three times in succession with an insecticide. Stop growing shoots at one or two joints above the fruit. Cut away weak spray and suckers which are not required. As a rule the second crop produces far too many fruits to mature perfectly. These should be reduced to two or three on a shoot. Add a little fresh mulching material where the old is exhausted. Give the roots plenty of stimulants, and always encourage a moist-growing atmosphere while the fruits are swelling. Outdoor trees have made a good deal of growth which will need stopping and regulating. It is only under very favourable conditions that outdoor Figs can be grown with real success in this country, so that timely attention to cultural details is essential if success is to be attained. The growths must be thinned so that each may have full benefit of sunshine and air, in order that they may be well ripened. Cut out the long, sappy growths and weak spray, retaining the hard, short-jointed growth. Do not let the trees suffer for want of moisture at the root. Diluted farmyard drainings will greatly benefit old trees which are carrying a full crop of fruit.

OUTDOOR VINES—Like the Fig, these will require much encouragement to mature the crop by the end of the

season. Fruit-bearing shoots should be stopped at the second joint behind the bunches. Pinch the laterals to one leaf and stop leading shoots, unless more extension is desired. R-gulate and tie in the shoots in a methodical manner, cutting away the weakest where they are too thick. Liquid manure may be given with good results after the berries have stoned. Should mildew appear, dust the affected parts with flowers of sulphur.

E. HARRISS.

Fruit Department, Royal Gardens, Windsor.

KITCHEN GARDEN.

CABBAGE—A sowing should now be made. For early winter use Winnigstait is one of the best. It is very hardy, consequently keeps growing until the end of the season, and, being of compact habit, it occupies but little space, and very fine heads can be grown when planted at 18 inches apart in the rows and about 15 inches from plant to plant. This Cabbage has the further recommendation of standing well after it has completed its growth. Rosette Colewort is another fine Cabbage for late use, but in some localities is reputed to be a little more tender than the first-named variety, and on this account it should be used when it has finished growing. It has compact heads of faultless table quality.

PARSLEY.—For garnishing and other purposes a good sowing of this herb should now be made for winter use. Choose a plot of ground that is firm and rich and well sheltered from north and east. Winds from these quarters are more harmful during the winter and spring months than many degrees of frost. It is also advisable, as a provision against severe weather, to sow some Parsley on beds (not too thickly), suitable for placing cold frames over when frost and snow make their appearance. When the Parsley plants are about 2 inches high a few should be transplanted into boxes, to be in readiness for transference to warmer quarters during hard frosts. Parsley grown in boxes will be found very useful in spring, when plants in cold frames and on the borders may have suffered from climatic influences.

TURNIPS.—These roots from this date onwards will not grow so quickly as those put in earlier, therefore a good breadth of ground should now be sown. Purple-top Munich and Chirk Castle are excellent sorts for present sowing, and will keep up a supply of good roots till the end of the season. Where

GARDEN SWEDES are appreciated a few rows may also be sown. They will do well where Spinach and early Peas have just been cleared off. Let the ground be forked over, and, should it be poor, a slight dressing of artificial manure may be applied. Then make the surface mould very fine. Let this sowing have more room between the drills in order to give the roots abundance of light and air. They will thus be better prepared to withstand low temperatures when they come; 20 inches to 22 inches from row to row will not be too much, allowing a little more space for the Swedes.

SALADS.—Make good sowings of Lettuces and Radishes, as by the time they will be ready increased supplies are generally in demand. At this date they will succeed well on a border with a north-western exposure. If the ground is in good condition and fairly moist, their season will be prolonged considerably. Little Gem is a good variety of Lettuce for this season, being sweet and crisp, requiring but little space, and standing a long while after its growth has been finished without showing signs of bolting. Thin out former sowings, stir the surface of the soil occasionally with the Dutch hoe, and see that the plants never suffer for want of water, as Lettuces grown on dry ground can never be satisfactory.

J. JEFFREY.

The Gardens, St. Mary's Isle, Kirkcudbright.

THE KITCHEN GARDEN.

SOME VALUABLE SUMMER LETTUCES.

FOR early summer use there are so many good Lettuces to select from that it would be out of place to dwell upon their merits; but later on—say from August to October—there is at times a scarcity.

To prepare for the season referred to one must sow in June, July, and early August. I prefer the first two months, as the varieties I have given special attention to are noted for their long standing qualities. The land must not lack food; this is more essential at the season named than in the early summer months. Sometimes transplanting is out of the question in hot July weather, and this must be met by thin sowings in rows in well-prepared land. It is surprising what good even a slight damping-overhead does late in the day; the plants revel in the cool moist air, and do not cease growing—an important point in all salad culture.

To meet the daily demand at the season named we will prepare the land in the winter and reserve a north or east border for this purpose. The plants may be grown on the Celery trenches. I

favour the Cabbage Lettuce for this work. There are some splendid types. Sutton's Supreme, a fine Lettuce of the Drumhead type, is very good; the plant is robust, and remains solid a long time before running to seed, the leaves are slightly margined with red, and the hearts are very close and of excellent quality. Satisfaction is another very fine Lettuce for this purpose; indeed, it remains good longer than most others. It is not large, and is an ideal garden Lettuce, having a brownish red colour that withstands drought and heat wonderfully well. Another very good late Lettuce is Standwell, a compact grower, and invaluable for August and later supplies. Marvel is also a splendid dry weather Lettuce, which has red-edged leaves, with dark outer foliage and pale golden hearts. Ideal and Giant are both good at this season, if large heads are required. In some gardens Cos Lettuce find more favour. Such sorts as Sutton's Little Gem are difficult to beat, a delicious small Lettuce, which remains solid a long time. I think these small, firm, sweet Lettuce are most serviceable in the private garden. Intermediate is likewise a very good autumn Lettuce; it is very compact, and gives a solid heart. Peerless, given a trial last summer, was very good, larger than the last named, but very sweet. It is a grand introduction in the Cos class, and one that will find much favour with growers. G. WYTHES.

NEW FRENCH BEAN WEBB'S HUNDREDFOLD.

THIS is an excellent variety for forcing, especially with those who only have small houses and little room. The pods are not long, but freely produced, very quick, and remain a long time before becoming stringy. We have grown it rather largely this year, and have been well pleased with it in every way. E. BECKETT.

THOMPSON'S PEAR.

THE illustration shows Thompson's Pear in candelabra form in full bearing. It is on the Quince stock, and was planted about thirteen years ago. It has fruited so well, almost every year, that it has necessarily made very restricted growth in that period, especially when, for instance, compared with the prodigious growth of some 27 feet made in ten years attributed to a Doyenné du Comice in the Channel Islands, figured in your columns early in the year. The single cordon on the left is a Nouvelle Fulvie Pear, which also bears regularly. In the current year's development of Pears I am most pleased with Doyenné du Comice, promising an excellent crop on a number of trees, in all forms and sizes, more so than any other variety. The fruits of Marie Louise, for instance, drop off wholesale; it is, of course, known as a capricious variety, however delicious. Sidcup.

H. H. RASCHEN.

MISCELLANEOUS.

ELLEL, REGENT'S PARK.

THIS charming retreat in the heart of London—near Primrose Hill—must always possess some interest to the horticulturist, for from here, when the place was in the possession of that keen orchidist, Judge Philbrick, K.C., came those wonderful collections of Orchids that were exhibited so successfully in the old South Kensington days of the Royal Horticultural Society some thirty-five years ago. How grand were the fine types of *Phalenopsis*! When in the occupation of the late Miss Behrens, who did so much to encourage horticulture, it was laid out by that prince of specimen plant growers—now, apparently, a lost art!—the late Mr. Thomas Baines, who certainly, by a judicious planting of suitable trees and shrubs, the making

of spacious lawns, and, in other ways, made the very best of the ground at his disposal. It is pleasant to note that the horticultural traditions of the place will not suffer at the hands of the present courteous owner, Edward Rosenberg, Esq., who takes a keen interest in gardening, well supported as he is by his capable head gardener, Mr. John Addison. Orchids are still largely grown, also Crotons, Dracænas, and the new hardy rose - coloured hybrid Tobacco (*Nicotiana glauca*). Sutton's fine strain of Gloxinias, in rich variety of colouring and splendid habit, is grown. Especially striking was that probably finest of all white Gloxinias named Her Majesty, snow-white, finely-formed flowers, borne on short stems just clear of the elegantly recurving foliage. Fine batches were noted of those useful winter-flowering Begonias Gloire de Lorraine and Turnford Hall. Pearson's fine types of zonal Pelargoniums give a welcome dash of colour, as do Fuchsias in good variety and admirably flowered, being judiciously toned down by



THOMPSON'S PEAR.

the greenery afforded by suitable and healthy-looking Palms and Ferns. The conservatory was looking at its best. How attractive were the well-grown and flowered plants of *Lilium longiflorum*, with the snow-white trumpet-shaped flowers produced in rich abundance! There are three vineries, and the Vines are in the rudest of health, carrying good crops. The borders were made and the Vines planted by the late Mr. Baines some twenty-three years ago, and during the time Mr. Addison has had charge of them—some eight years—they have always produced an abundance of fruit. The sorts grown are Muscat of Alexandria, Black Hamburg, Foster's Seedling, and Madresfield Court Black Muscat. The writer may well wind up these remarks of a charmingly-kept place by observing that, with regard to outside matters, note was made of a good planting of Rhododendrons (Lee's hybrids), which had flowered magnificently. Roses in excellent variety gave promise of a good blooming season. Striking was an arrangement of that grand white flower, *Gladiolus The Bride*, in a bed of Roses edged by some good border Carnations. Fine standard Fuchsias, that well-known

bedding Pelargonium Henry Jacoby, with an undergrowth of Harrison's Musk, the whole having a background of fine trees and shrubs, made an effective combination. The Sea Thrift, flowering profusely in a border, is quite worthy of mention. A fine Medlar on the lawn is very conspicuous. Quo.

LEGAL POINTS.

MORTGAGOR AND MORTGAGEE (S. G.).—The Market Gardeners' Act, 1895, does not apply to transactions between mortgagors and mortgagees, but only to those between landlords and tenants. The question which you put does not seem to be one of practical importance. If you remove or attempt to remove the greenhouses, &c., the mortgagee will probably call in his money. It therefore seems to be immaterial to enquire whether the security upon the greenhouses, &c., is valid. If the greenhouses, &c., were not mentioned in the mortgage it is clear that they would form part of the mortgagee's security. The mention of the greenhouses, &c., in the deed may have the effect of constituting it a bill of sale and rendering it invalid in so far as concerns the greenhouses, &c.; but this is not clear. We advise you not to remove the greenhouses, &c., without the mortgagee's consent.

REMOVING FRUIT TREES, &c. (Woodman).—A servant who resides in a cottage belonging to his master cannot claim compensation on the termination of his engagement for fruit trees, Rose trees, vegetables, &c., which he has planted. Neither the Agricultural Holdings Act nor the Market Gardeners' Compensation Act applies to such a case. No doubt if you ask the "heir" to allow you to remove the trees, &c., he will comply with your request, provided that the removal will not injure the garden or orchard in which they are planted.

PRIZES FOR GARDENERS. JULY.

OPEN TO ALL.

GARDENING IN TOWN AND SUBURB.

A First Prize of FOUR GUINEAS,
A Second Prize of TWO GUINEAS,
A Third Prize of ONE GUINEA,
And a Fourth Prize of HALF-A-GUINEA
are offered for the best answers to the following questions.

I.—Mention the names of the twelve Roses which grow and flower most freely in the suburbs of large towns.

II.—Describe the way you would plant a shady border in a town garden to get the prettiest spring and early summer effects.

III.—Name the class of tree or shrub that cannot be grown with success near large towns.

IV.—What shrubs would you select for planting in such gardens? Give the names of the best six.

V.—Why is it that plants with rough leaves are not, as a rule, a success near large towns?

VI.—Name twenty different hardy plants that are quite happy in town gardens, almost as much so as in the country.

VII.—Name the six foliage plants that succeed best in the rooms of a suburban house.

VIII.—Name the best six climbing plants for a town garden.

Answers to these questions, written on one side of the paper only, must be addressed to The Editor of THE GARDEN, 20, Tavistock Street, Covent Garden, London, and the envelopes marked "Competition." They must reach here not later than the 31st inst. The Editor cannot undertake to return the MS. of unsuccessful contributors.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR of THE GARDEN, 5, Southampton Street, Strand, London. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

Legal Points.—We are prepared to answer questions of law which have anything to do with the subject of gardening and forestry. The questions should be as clear and explicit as possible, so that there can be no doubt as to the point of the question. Answers will be found in a separate column headed "Legal Points."

VARYING HAWTHORN (A. Taylor).—Possibly the pink-flowered Hawthorn was grafted on to the white one, which has gradually developed unchecked, and has at last overgrown the pink; or this last named having originated from the white one, it may be a case of reversion to the original type. There is no set custom in the trade in reference to the return of unsatisfactory plants, and different firms regard the matter in different lights. It certainly seems strange for a firm to treat the subject as mentioned in your letter, and if it happened there must have been, we should think, some misunderstanding. Both *Gladioli* and *Hippeastrums* need three years to reach the flowering stage from seed.

PRUNING SYRINGA, WISTARIA, AND ROSE (E. S. H.).—If by *Syringa* you mean *Philadelphus* or Mock Orange, you need only thin your bushes as soon as the flowers fade. If true *Syringa*, or, giving it its common name, Lilac, is meant, you should thin out the branches and reduce the young shoots, leaving the centres of the bushes open. Your *Wistaria* will be more likely to flower if you shorten the long shoots which have been formed this year to four or five buds, making them form spurs. This work should be done at once. The *Carmine Pillar Rose* may have some of the oldest wood removed as soon as the flowers are over.

SWEET PEAS IN POTS (A. K. M.).—Sweet Peas are frequently grown in pots for flowering in the greenhouse, but no matter how admirably they are tended, they are never as floriferous as when cultivated out of doors. You could sow about ten seeds in an 8-inch pot, containing sound loam over good drainage, in September. Keep them out of doors as long as possible, and then take them into the greenhouse. It is impossible to say definitely when they would flower, as this would depend upon the weather and your conveniences. Or the plants can be grown in pots in cold frames and transferred thence to the greenhouse. In either case the feeding must be generous from the time the plants come into their first bloom.

LILIUM CANDIDUM DISEASED (Reddings).—Your *Lilium candidum* are attacked by the Lily disease or fungus. This fungus is known by two different names, as it appears in two very dissimilar forms, which have been only recently recognised as belonging to one species. This is a very serious disease, and has destroyed these Lilies in many places. In very bad cases the best thing to do is to dig up and burn the entire plant, bulb and all. When the attack is not so virulent, the infested parts should be cut away and burnt, and the rest of the plant sprayed with Bordeaux mixture. A very similar disease attacks *Pæonies*. The fungus is now in its botrytis form. Later on some of the spores will

germinate and become small blackish nodules in the tissues of the plants and the soil. These are known as *Sclerotia*. These again produce spores, which germinate on the stems and leaves.—G. S. S.

CURRANT LEAVES DISEASED (J. A. S.).—The leaves of your Currants are attacked by one of the shot hole funguses, belonging probably to the genus *cercospora*, and by the grubs of the Gooseberry and Currant saw-fly (*Nematus Ribesii*). The best cure for the former is picking off all the worst infested leaves and then spraying the bushes with loz. of sulphide of potassium (liver of sulphur) or Bordeaux mixture. The grubs should be picked off by hand, or they may be poisoned by spraying the bushes with loz kept well mixed in 15 gallons of water, add 2oz. of freshly-burnt lime, or mix the Paris green with the Bordeaux mixture, but not with the sulphide of potassium. If the bushes are bearing fruit, care must be taken to wash the fruit thoroughly before it is eaten, as Paris green is very poisonous. Pick off and burn any leaves or shoots of the *Chrysanthemums*, which are evidently so much injured as to be of no further use to the plants. Then spray with diluted Bordeaux mixture or sulphide of potassium as directed above.—G. S. S.

TAMARISK (M. E. Webster).—We have never before met with such a beautiful golden form of the Tamarisk, neither can we learn that such a one is in cultivation. If you succeed in its propagation you have undoubtedly a shrub with a great future before it; and propagation of the Tamarisk is by no means a difficult matter. Still, you cannot expect this variety to be increased as readily as the common kind, and if you have facilities for the purpose we should advise taking cuttings about 4 inches or 5 inches in length and dibbling them into pots of sandy soil pressed down moderately firm. After this they should have a good watering through a fine rose, and then be placed in a cold frame kept close and shaded from direct sunshine. With a convenient frame cuttings may be put in at almost any season (the present being a good time); but failing this protection the cuttings should be inserted in early autumn, choosing a sheltered border for their reception. By sheltered is meant a spot protected from harsh winds, but not overhung with trees. Whichever method of propagation you follow one great point to bear in mind is that on no account are you to cut all the coloured portion off your plant, but be sure and leave some to grow, as if the whole of the golden part is cut away and you are unfortunate with the cuttings this beautiful sport may be lost, whereas if some portions are allowed to remain uncut they will yield a further supply of cuttings.

TO DESTROY WEEDS ON GARDEN PATHS AND LAWNS (G. H. B. M.).—There are various preparations on the market for the destruction of weeds on walks, many of them being from time to time advertised in our columns. We have had long experience in the use of these weed destroyers, and we have no hesitation in saying that they are most effective, and are certainly cheaper than hand weeding or the application of salt by at least 30 per cent. One application will render the walks immune from weeds for at least twelve months, and sometimes, in our experience, for considerably longer. Directions how to use the fluid are given on delivery. Most of these destroyers are composed of arsenic, therefore the utmost care must be observed in handling and securely storing the same. It is impossible to give the cost per yard run without knowing the width of the walks, but it will be found to amount to very little. It should be applied with an ordinary watering-can having a rose to it, and if the edges of the walks be formed of grass or any other living edging, the liquid must not be laid on the walk within 10 inches of such edging, otherwise there is a danger of the poison being washed into the edging by a shower of rain and damaging the same. For the destruction of

weeds on lawns, such as Dandelions, Plantains, and Daisies at this time of the year, there is no preparation which will effectually kill these weeds without at the same time injuring the grass. The best way is to employ a handy boy or a woman who has a partly worn and pointed old table knife, and cut the roots (or stems) of those weeds 2 inches or 3 inches underground, plucking them up and carrying them away. This is by far the most effectual way in our experience, and it is wonderful how soon a lawn can be got rid of these obnoxious weeds by perseverance in this course for a few seasons.

PLUM TREES (Rev. A. O. Loughlin).—Your trees are attacked by green fly rather badly, and if you do not remove or destroy them they will weaken the young shoots considerably. You may kill the green fly by syringing the ends of the shoots with Tobacco water (made by soaking Tobacco paper in water), by dusting the shoots with Tobacco powder (obtainable from horticultural sundriesmen), or by syringing with soft soapy water. The latter may be made by dissolving a handful of soft soap in two gallons of water and adding a wineglassful of paraffin. Syringing the shoots forcibly with clear water will remove some of the insects but will not kill them. You could also use one of the many good insecticides advertised; they are very convenient. We assume that you mean breast wood, a name given by gardeners to the useless side-shoots which are produced in abundance on fruit trees during summer.

SWEET BRIARS AND CATTLE (P. H. J.).—We should not care to leave a valuable hedge of Sweet Briar to the tender mercies of cattle, although we question whether they would injure it to any great extent provided other food was plentiful. A few strands of barbed wire would, however, be advisable, if you contemplate planting Briars around a paddock or meadow. We certainly should prefer the Penzance Briars to the common Sweet Briar. There is such a variety of colours in the blossom, and the foliage is so charming in tint as well as fragrant. Moreover, some of the kinds, such as *Anne of Geierstein*, grow with extraordinary vigour. We should advise you to grow *Erica carnea* in a peaty soil. This variety perhaps would endure lime better than others, but we should not advise planting near limestone if it can be avoided. You could make a low wall of burrs, which can be procured from a brickmaker. Have two parallel rows about 1 foot apart and about 18 inches deep, put some rough stones in the bottom, then fill up with peat in which a little fibrous loam is added, tread this firmly into the trench, then plant. Heaths should not be buried deeply. Try and leave the collar of the plant above the peat.

DISEASED VINE LEAVES (F. J.).—It is evident by the Vine leaves sent that they and the Vines generally are suffering from an attack of red spider or thrips—probably the former—as that insect is generally more troublesome to Vines than the other. As the Vine roots are in an outside border it is probable that before the recent rainfall the border had become very dry, and nothing so soon helps to breed red spider; then the fact that it is the younger or more tender leaves which are most affected is evidence that the cause is absorption of sap by insects. You may also have kept the house shut up too close, and thus generated a hot, dry atmosphere, as that again helps to rapidly breed red spider. The roots are now probably well moistened; in any case see that they are kept so all the summer until at least the Grapes begin to colour. A light mulch of long manure on the border would do good; then syringe the Vines thoroughly with clear water night and morning, and do not allow a hot, dry atmosphere to be created. If you have hot water pipes in the house have them heated, then coat them over with a sulphur wash, or well wet them and dust with sulphur, shutting the house up close for several hours to

generate vapour. You may also gently spray or syringe the leaves with a decoction of Quassia chips, made by soaking 2oz in a gallon of boiling water, and dissolve $\frac{1}{2}$ lb. of soft soap in two quarts of hot water, then add to the other, and gently syringe when cool. Some of these remedies must be applied at once before the insects get too great a hold of the leaves.

GERANIUM CUTTINGS (*F. Thomas*).—We should advise you take cuttings from your Geraniums, or Pelargoniums as they are more properly called, in late summer rather than wait until spring. Cuttings from firm shoots will root easily if put firmly in small pots or in boxes filled with very sandy soil. Cut the shoot below a joint and make the base firm in the pot or box. A good plan is to put a layer of sand on top of the soil, then, when you make a hole with the dibber in which to insert the cutting, some of the sand falls into the hole; thus the base of the cutting rests directly upon sand, which encourages rooting. The cuttings will require very little water indeed for some time. Place the boxes or pots in which they have been placed in full sun, on a bed of ashes if possible. They may remain there until about the end of September in a pit or frame that is dry, and from which frost is excluded. Damping is an evil from which they suffer greatly, and all dead or decaying leaves should be promptly picked off.

DISEASED PEAR LEAVES (*A. Bill*).—The leaves are injured by gall mites (*Phytoptus Pyri*). Very often the blisters caused by these mites are so numerous that the leaves may become covered with them. In severe cases almost every leaf on a tree may be more or less injured, to the great detriment of the health of the tree. The most successful way of destroying this mite is by closely watching for its attack in early summer, and cutting off the diseased leaves as soon as perceived; by this means its further progress may be arrested. Once a tree has been badly infested it is almost a hopeless task to try and get rid of the mite, as they shelter in the buds and reappear with new growth in spring.

PREVENTION OF CATERPILLARS ON ROSES (*E. H. N.*).—One of the best known remedies for freeing Rose bushes of the destructive caterpillars is late pruning, after the plants have started into leaf. The moths lay their eggs in the topmost shoots, and if we prune these away, then, to a great extent, we are saved the ravages of these obnoxious insects. If you observe an old neglected Rose bush—one that is left unpruned—you will find that it is usually tainted with caterpillars, whereas a maiden, or one year old plant, that has been cut back, as it should be, to three or four eyes from the base, has fine healthy young shoots, with not a sign of a caterpillar, although too often visited with the ubiquitous aphid. The caterpillars that infest Roses are usually the larvæ of moths, and most of these fly at night or in the evening. These moths are insignificant little creatures that almost escape one's notice. We do not think any dressing of the soil or shoots would prevent the moths depositing their eggs; but much can be done by good cultivation and hard pruning to ward them off, as insect pests of all sorts find a ready victim in a debilitated plant.

CAULIFLOWER ATTACKED BY GRUB (*K. J. H. and Subscriber*).—I am sorry to say in examining the pests you sent I forgot which letter belonged to which box, and as each referred to the roots of Cauliflowers attacked by a maggot in one case and a grub in the other I had nothing to put me right. The oblong box with a hinged lid contained roots attacked by caterpillars, which were very active and about an inch in length; they are the caterpillars of one of the Swift moths, the Garden Swift (*Hefcialis lupulinus*). These caterpillars are very destructive in gardens, feeding on the roots of a great variety of plants. I do not know of any practical way of destroying them but turning them up out of the soil, or

rooting up the plant they are attacking. Any insecticides which would kill them would also be fatal to the plants. Watering heavily with a strong solution of nitrate of soda or some liquid manure would be distasteful to the caterpillars and beneficial to the plants. The round box with pull-off lid contained roots attacked by the spotted snake millipede (*Blanjulus guttulatus*), also a very destructive pest to the roots of various plants and ripe Strawberries. I have seen a dozen on one fruit; they are very difficult to kill by any insecticide on account of their horny skins. Strong brine or a strong solution of nitrate of soda will do so if it can be made to reach them in sufficient strength. They may often be trapped by burying slices of Turnip, Mangold, Potato, or Carrot just below the surface of the soil next the plants they are attacking. The baits should be examined every morning; a small wooden skewer stuck into each will show where they are buried. If the crop has been badly infested the ground should be well dressed with gas lime and fallowed for some months.—G. S. S.

WEEDY TENNIS LAWN (*An Old Subscriber*).—At this time of the year we do not advise the application of lawn sand or any other preparation for the destruction of weeds on a lawn. The grass being young and tender there is a risk of damaging the grass as well as killing the weeds, thereby spoiling the appearance of the lawn for the season. Lawn sand is effective in destroying Daisies without injuring the grass if applied in the month of March in safe proportions, as directed in instructions given by the manufacturers; but it will not kill Plantain or Dandelion. The best remedy for these is to cut them deep in the ground and pluck them up and throw away. Some recommend caustic applications for burning the roots of such weeds as Dandelions and Plantain; but the application of such a remedy involves as much labour very nearly as cutting the roots, besides the risk run of burning the grass near the weeds and leaving ugly brown patches on the lawn for the rest of the summer.

FUCHSIAS (*Mrs. Clarke*).—A temperature of about 60° is most suitable for the young plants in spring, giving plenty of water, and syringing morning and afternoon. The latter helps to keep down insect pests as well as encourage growth. If your plants are unshapely you should pinch back those shoots which are growing too freely, so as to allow the weaker ones a better chance. The Fuchsia is not particular as to soil, although one composed of two parts loamy soil and one of cow manure perhaps suits it best. If your plants are under glass they should have plenty of air and some shade. You do not say whether your plants are out of doors or under glass; in fact, you give no information whatever about them. If they are under glass their not flowering satisfactorily may be due to the growth not being hard enough, owing to an insufficient supply of air to the house. If they are outside, a shady place would not be conducive to free flowering. If you will give us more details about your Fuchsias we shall be able to give you a better answer.

PEACHES FALLING (*O. S.*).—The usual cause of Peaches dropping at the stage your fruit has arrived at is faulty stoning; but in the fruit before us this is clearly not the cause, as the kernel is perfectly healthy. The fact that these two trees have failed in the same way for two years points, we think, to the conclusion that they are suffering from some constitutional weakness. Some of the fruit is badly gummed, as if the trees were suffering from this malady, and others are affected by what appears to be a fungus. We have occasionally come across similar cases to yours, and we have invariably found that the cause of the mischief has been at the roots and in the soil. We should advise that the trees be partially, or better still, if not too large, wholly taken up in the autumn and replanted in new soil. We are sure it will be found that many of the main roots have run away from home, and are, to a great

extent, fibreless; such roots should be cut back within 2 feet or 3 feet of the stem before replanting. You will also, we think, find that the soil they have been growing in is deficient in lime. In replanting add two barrowloads of lime to each cartload of loam, and half a bag of $\frac{1}{2}$ -inch bones, but no organic manure. In our case this treatment has always had the effect of soon bringing round such trees into a good and permanent bearing condition.

PEONIES (*R. D.*).—We cannot advise you to cut down the Peonies at this season, and we would not do so before the end of July at the earliest. The longer the foliage can remain the greater possibilities are there for the full development of the crown bud upon which the flowering next year depends. The longer you prolong the life of the foliage and stems—and in these plants feeding and encouraging the stems also—so much more in proportion will be the yield as well as the size of the flowers in the year to come. Peonies are too valuable in the garden to expose to any risk. We use every endeavour to keep the foliage going as long as we can, so much indeed do we value it.

TREE CARNATIONS (*Florizel*).—Your better plan, we think, as the plants are probably somewhat thin and starved, will be to shorten back the growths and plant out in good garden soil. Do not cut hard back, but so shorten the growths that when the old flowering spike has been cut away there still remains at the point from which it originated not less than six pairs of leaves to produce fresh shoots for flowering again. At the same time with the greater freedom of root action many fresh shoots will appear, and some of these will make good cuttings by autumn. In September the old plants may be lifted and potted, and will doubtless flower during the winter. Tree Carnations may receive applications of soot water or this and cow manure in mixture twice weekly in the growing season. The highly concentrated chemical manures are not good for this class of Carnations as a rule. Where fresh young plants are grown in pots a little bone-meal may be added to the soil in proportion of a 6-inch potful to each barrowful of soil. Tree Carnations are given to spot at times, but it is unusual to have so much variety as you describe from a single plant. As a race of seedlings the flowers were of good average quality.

INJURY TO VINES, PEACHES, AND TOMATOES (*W. C.*).—We are sorry for our correspondent for the misfortune that has happened to his Vines and Peaches, and cannot account for the damage happening without some special or accidental cause. It is certainly not owing to bad cultivation or neglect, as the foliage of both the Vines and Peaches is free from insects and well developed. We do not think the damage has been caused by polluted atmosphere. You would immediately have found this out by the bad smell, therefore we are forced to the conclusion that it is the roots which are damaged, and your discovery of the escape of gas and its penetration through the drains and grounds of the houses point, we think, very much to the fact that the gas was the cause of the mischief. How great the injury has been, and how long it may affect the health of the trees, depend on the extent of the injury, and this cannot be ascertained before the autumn, when the roots may be examined. In any case it must weaken the trees for a year or two by the serious check it has given to this year's growth. The best you can do for the trees now is to encourage the promotion of new growth by shading from hot sunshine in the middle of the day, and by keeping the atmosphere moist and not giving too much air, keeping the roots fairly moist, but not too wet. When free growth is re-established, the shading should be discontinued, and more air admitted in order to promote a harder and better ripened growth. With reference to your claiming damages against the gas company, send us full details, and we will give you a reply under "Legal Points."

NAMES OF PLANTS.—*M. H. Vurlifstrich*—1, *Sidalcea candida*; 2, *Tradescantia virginica*; 3, *Hesperis matronalis*; 4, *Lychnis chalcidonica*; 5, *Geranium Endressii*.—*Newcastle*.—*Cornus sanguinea*.—*Feld*.—1, *Dianthus floribundus*; 2, *Viburnum Lantana*; 3, *Symphoricarpos racemosus*; 4, *Ranunculus scleratus*; 5, *Callium Mollugo*; 6, *Epilobium tetragonum*; 7, *Prunella vulgaris*.—*Katherine G. Kinnear*.—A strong variety of the Harebell (*Campanula rotundifolia*).—*T. K. Marsh*.—*Erigeron philadelphicus*.—*Tue Brook*.—The Japanese Rose (*Rosa rugosa*).—*P. W. D.*.—*Limnanthes Douglasii*.—*D. Culross*.—1, *Orchis maculata*; 2, *Aster alpinus*; 3, *Geum miniatum*.—*Subscriber*.—*Celsia cretica*.—*Kent Reader*.—*Lathyrus grandiflorus*.—*N. Bond*.—Both are specimens of *Kalmia latifolia*, which, being raised in considerable quantities from seed, often shows a certain amount of individual variation.—*H. C. Rose*.—*Kerria japonica* var. *variegata*.—*Rev. T. A. Holcroft*.—1, *Tradescantia virginica*; 2, *Veronicum Teucrium* var.; 3, *Saxifraga* (*Megasea*) *Stracheyi* probably, but it is difficult to name the *Megasea* from leaves only.—*F. D. Brocklehurst*.—*Lovage* (*Levisticum officinale*).—*Sarum*.—1, Climbing *Deviensium*; 2, *Flora*; 3, probably a *Damask Rose* (*Rosa damascena*), variety not recognised.—*Miss Empson*.—We believe the Rose to be Ayrshire splendens or Myriscenced.

SHORT REPLIES.—*W. Pearce*.—We have known this strain of Foxglove for years, but the terminal giant flower has been generally acknowledged to be no improvement. It is in reality a malformation destroying the natural grace of the plant.—*Ajax*.—You should gather your *Cypripedium* cones as soon as ripe and place them in a warm and dry place until they burst. The seeds may then be sown at once in a warm prepared border, using light soil. If you are troubled with mice roll the seeds in red lead previous to sowing. If you were to sow a few seeds in pans or boxes in a cold frame it would be an advantage.

PRESENTATION TO MR. LEONARD SUTTON.

THE esteem in which the Reading and District Gardeners' Association hold their president, Mr. Leonard Sutton, was shown on May 26, when an illuminated address and silver



CENTRE-PIECE PRESENTED TO MR. L. SUTTON.

centre-piece were presented to him by the members. The ceremony took place in the University College Gardens in the presence of some 150 members. The wording of the address was as follows: "We, the undersigned members of the Reading and District Gardeners' Mutual Improvement Association venture to ask you to do us the honour to accept the accompanying silver centre-piece as a slight and very sincere token of our great respect and appreciation of your kind services as president since January, 1902. Under your direction and guidance the association has steadily progressed as a power for good in all matters relating to horticulture. The deep interest you have taken in providing opportunities for increasing our knowledge and experience is so much appreciated that we hope it may be a real pleasure to you to receive this tangible expression of our feelings." Then followed the names of 200 subscribers. Mr. T. J. Powell of Park Place Gardens, Henley-on-Thames, expressed on behalf of the members of the association their indebtedness to Mr. Leonard Sutton for his invaluable help and encouragement. As president he had done all he possibly could to bring the association to a high state of efficiency. Mr.

Stanton of Park Place Gardens, Mr. W. Barnes of Bearwood Gardens, and Mr. T. Neve (honorary secretary) also spoke, and eventually Mr. W. Townsend, Sandhurst Lodge Gardens, made the presentation. Mr. Leonard Sutton replied at some length, and assured the members of his appreciation of their kindness and his continued interest in the association.

SOCIETIES.

HORTICULTURAL EXHIBITS AT THE PARK ROYAL SHOW.

IMMEDIATELY on the right of the main entrance to the show ground is the imposing exhibit of Messrs. Sutton and Sons of Reading. Grasses and Clovers in growth, as found in the fields at this time of year, were shown, each variety labelled with its popular and botanical name. A collection of dried weeds and innutritious grasses found in poor pastures, as well as specimens of the grasses which flourish in rich and profitable pastures, were on view. Sutton's pedigree stocks of agricultural seeds were represented by some capital roots. Some of the best Potatoes, including the famous Sutton's Discovery, were to be seen. A brilliant display of Gloxinias, double Begonias, and other flowers from Messrs. Sutton's seed houses illustrated another department of this great seed business. The flowers formed a brilliant centerpiece, the beauty of which was enhanced by a bank of velvety turf grown from Sutton's lawn grass seeds.

Messrs. Carter and Co., High Holborn, had an extensive exhibit of seeds, grasses, flowers, and roots. In the centre were Gloxinias, Begonias, Lilies, and Verbenas, while specimens of lawn and meadow grasses, cereals, Clovers, and other farm and garden products, including a collection of vegetables, were attractively displayed in great quantity and variety.

Messrs. Webb and Sons, Wordsley, Stourbridge, exhibited flowers, vegetables, and roots, the produce of their seeds, in considerable variety. Sweet Peas and other flowers filled the centre of the exhibit, and on either side were arranged specimens of grasses, cereals, roots, and vegetables. A number of varieties of Peas, including some of Webb's special varieties, were a splendid feature.

Messrs. Dicksons, Chester, made a showy display with pot plants and cut flowers. They also exhibited seeds and grasses in variety. Messrs. Dicksons also exhibited a group of trees and shrubs, e.g., *Rhododendrons*, *Acers*, *Cupressus macrocarpa* *lutea*, and other conifers.

Messrs. Dickson, Brown, and Tait, Manchester, showed a collection of dried grasses and Clovers, together with seeds, vegetables, and flowers.

Messrs. Kent and Brydon, Darlington, exhibited a bright group of shrubs and conifers. Several good things among them were *Cupressus lawsoniana* *Alummi*, *Picea excelsa* *aurea*, *Cupressus pisifera* *filifera*, and others.

The exhibit of trees and shrubs from Messrs. Fisher, Son and Sibray, Limited, Handsworth, Sheffield, contained many good and rare plants. The plants of the silver and golden variegated varieties of *Dimorphotheca mandschurica* were a feature of this group. Other splendid plants were *Abies Engelmanni* *glauca pendula*, *Ilex crenata*, *Abies brachyphylla*, *Prumnopitys elegans*, *Abies Omorika*, *Pinus haifouriana* (the rare Fox-tail Pine), *Abies hookeriana*, *Taxus ericoides*, and others.

Messrs. William Cutbush and Sons, Highgate, exhibited an interesting group of their clipped trees in many curious forms and designs.

Mr. L. R. Russell, Richmond, showed several groups of trees and shrubs, largely composed of *Acers* (in variety), *Oaks*, *Clematises*, *Eurya*, and conifers.

Messrs. Little and Ballantyne, Carlisle, exhibited a group of *Acers*, *Hollies*, conifers, and other trees and shrubs. They were represented by good specimens, attractively arranged. The same firm also showed an exhibit of grasses, cereals, flowers, etc., products of their seeds.

The Agricultural and Horticultural Association, Long Acre, W.C., had a large exhibit of seeds, manures, flowers, and plants, representing the One and All specialities.

Messrs. Garton and Co., Warrington, showed an extensive collection of farm seeds, grasses, Clovers, cereals, &c.

Messrs. Dickson and Robinson, Manchester, exhibited a very attractive lot of *Verbenas* and *Marguerites*, English *Irises*, *Gladioli*, grasses, cereals, &c. The *Marguerites* comprised a new *Anemone*-flowered white variety, and among the *Verbenas* was *The King*, an improved form of the variety *Miss Willmott*.

Among the miscellaneous exhibits were the following: Motors and other lawn mowers from J. Green and Son, Ltd., Leeds and London, and Ranomes, Sims and Jefferies, Limited, Ipswich; tents from John Unite, Edgeware Road; garden seats and tents from Heady and Edwards, Cambridge, and C. and W. Baswell, Victoria Works, Torquay; rustic summer-houses from Henry and Julius Caesar, King's Cross and Knutsford, Cheshire; Innans and Co., Streteford, Manchester, and G. W. Riley, Herne Hill; garden seats, pergolas, rustic summer-houses, and other garden furniture, greenhouses, and frames from J. P. White, The Pythle Works, Bedford; fences and palings from the Economic Fencing Company, Billiter House, Billiter Street, E.C.; patent cement (non-rotting) greenhouses and attachments from A. T. Goodwin, Horticultural Builder, Maidstone; wire tension greenhouses from Skinner, Board and Co., Bristol; fire appliances from Merryweather and Co., Long Acre, W.C.

There was a series of most interesting exhibits from various experimental schools and agricultural stations throughout the country, showing the results of many different experiments in connexion with the growth and culture of trees and plants under various conditions. There were

exhibits from the Rothamstead Farm, Cambridge University Experimental School, Harper-Adams Agricultural College, Newport, Salop, University College (Reading), Royal Agricultural College, Cirencester, Country Gentlemen's Association, Midland and Agricultural Dairy Institute, the Royal Agricultural Society, the Royal Meteorological Society, and the Surveyors' Institution. The Right Hon. the Earl of Yarborough, Brocklesby Park, Lincolnshire, sent exhibits showing the damage done by voles and squirrels to young trees.

COLCHESTER ROSE AND HORTICULTURAL SOCIETY.

THIS annual exhibition was held on the 28th ult., and an excellent display resulted. Roses were very good, as, too, were hardy flowers, fruits, vegetables, and table decorations. The silver medal Rose in the open classes was Frau Karl Druschki, shown by Messrs. B. R. Cant and Sons, The Old Rose Gardens, Colchester. Mildred Grant (H.T.), from Mr. Bowyer, Hertford, and Maman Cochet (T.), shown by Mr. O. G. Orpen, were the silver medal blooms in the amateur classes.

ROSES (OPEN).

Messrs. B. R. Cant and Sons, The Old Rose Gardens, Colchester, won the first prize for forty-eight distinct blooms with a splendid lot. The quality of this exhibit may be known from the fact that out of four blooms chosen by the judges from which to select the medal bloom, three were taken from Messrs. B. R. Cant's stand. The medal was given to Frau Karl Druschki in the first prize exhibit. Other blooms almost equally good were Mildred Grant, Mrs. J. Laing, Bessie Brown, and Mrs. Mawley. Messrs. Frank Cant and Co. were second, and Messrs. D. Prior and Sons third.

Messrs. Frank Cant and Co., Braiswick Nursery, had the best eighteen distinct Teas or Noisettes with some very good blooms of The Bride, Dr. Felix Guyot, Medea, Souvenir de Pierre Notting, Maman Cochet, and others; second, Messrs. B. R. Cant and Sons, Mrs. Mawley being a splendid bloom; third, Messrs. D. Prior and Sons, Colchester.

For twenty-four distinct garden Roses, Messrs. Frank Cant and Co., Braiswick Nurseries, were first with beautiful bunches of Leonie Lamesch, Rubin, Irish Glory, Kilmarney, and others; second, Messrs. B. R. Cant and Sons, The Old Rose Gardens, Colchester.

AMATEURS.

Eighteen distinct blooms: First, Mr. O. G. Orpen, West Bergholt, White Maman Cochet and Mrs. W. J. Grant being excellent; second, Mr. R. Steward, Saxlingham.

The first prize for twelve distinct blooms was won by Mr. O. G. Orpen also, Anna Olivier, Maman Cochet, Lady Roberts, and others being very well shown; second, Mr. W. Leggett, 241, Maldon Road, Colchester; third, Mr. R. Steward.

In the class for twelve distinct blooms (growers of less than 1,000 plants), Dr. T. E. Pallett, Earl's Colne, was first with some very good blooms, especially of Frau Karl Druschki and Mildred Grant; second, Mr. G. H. Baxter; third, Mr. G. A. Hammond, Burgess Hill. For nine distinct blooms (growers of less than 1,000 plants), Mr. G. H. Baxter, Brentwood, was first, Mrs. Ed. Mawley being his best bloom; second, Dr. Pallett; third, Mr. G. A. Hammond.

There were numerous entries in the class for six distinct blooms (growers of less than 500 plants). Mr. R. W. Bowyer, Hertford, was first with the flowers of Caroline Testout, Mrs. Laing, and others; second, Mr. F. H. Cooke, Birch; third, Mr. J. H. Salter.

In a class for six distinct Teas (growers of less than 500 plants), Mr. R. W. Hammond, Burgess Hill, was first, The Bride being the best; second, Mr. R. W. Bowyer; third, Mr. F. H. Cooke. Of growers of less than 250 plants Mr. W. Leggett, Colchester, won the first prize for six distinct blooms.

Among local growers, Mr. C. R. Gurney-Hoare, Lexden, won the silver medal offered by the Mayoress for the best twelve distinct blooms. Maman Cochet and Ulrich Brunner were among the best. Dr. B. H. Nicholson won the second prize, and Mr. G. A. Fincham the third. The best six blooms, distinct (local), were shown by Sir M. E. Grant Duff, Lexden Park (gardener, Mr. W. Oliver); and the best six Teas by Mrs. C. M. Stanford, Braiswick.

In the extra classes for amateurs, Mr. F. H. Cooke, Birch, was first, Kaiserin A. Victoria being an almost perfect bloom; second, Mr. O. G. Orpen, West Bergholt; third, Mr. R. Steward, Saxlingham.

The best six Briar Roses were shown by Dr. B. H. Nicholson, Colchester; the best six blooms of one variety (except Tea or Noisette) by Mr. G. A. Hammond, Burgess Hill. Frau Karl Druschki was the variety shown.

Mr. O. G. Orpen won the first prize for twelve bunches of distinct garden Roses in the extra classes for amateurs. Lady Curzon and Rosa macrantha were two of the best. The Hon. W. Lowther, Campsea Asher, was second. Mr. H. G. Egerton Green, King's Ford, showed the best six bunches of garden Roses.

PLANTS.

The best group of pot plants arranged for effect was set up by Sir M. E. Grant Duff, Lexden Park (gardener, Mr. Oliver), and the same exhibit also won first prize for a table of pot plants, arranged for effect on a space 12 feet by 3 feet.

CUT FLOWERS.

Messrs. Wallace and Co., Kilmfield Gardens, Colchester, won first prize for a collection of hardy flowers with a very fresh and attractive exhibit that comprised

Calochorti, Lillums, *Oenothera speciosa*, *Pæonies*, *Phloxes*, *Delphiniums*, &c. Mr. R. C. Notcutt, Woodbridge, was second.

The Hon. W. Lowther, Campsea Ashe, won the first prize in the amateur classes for eighteen, twelve, and six bunches of hardy flowers.

For six bunches of *Pæonies* Messrs. Bunting and Son, Lenden Road, Colchester, were first. For twelve bunches of Sweet Peas Messrs. E. W. King and Co., Coggeshall, won first prize, while Mr. W. J. Weeks had the best six bunches, and Messrs. E. W. King and Co. the finest nine vases of Sweet Peas, distinct varieties.

FLORAL DECORATIONS.

Mrs. A. G. Orpen, West Bergholt, Colchester, won the first prize for table decoration with Roses only. She used large white single Roses very effectively, and yet very simply; Miss Akers was second. Mrs. Orpen also took first prize for a basket of cut flowers and for a posy. The best epergne of flowers was shown by Mrs. Paxman, Flitsted Hall; Messrs. Saltmarsh and Son, Chelmsford, winning for a bowl of Sweet Peas.

FRUIT AND VEGETABLES.

For a collection of six dishes of ripe fruit the Hon. W. Lowther, Campsea Ashe (gardener, Mr. Andrews), won first prize. Strawberry Waterloo was the best dish. Mr. Messenger, gardener to C. H. Berners, Esq., Ipswich, was second with, on the whole, we thought, finer dishes; third, Mr. F. Woods, gardener to A. G. Munford, Esq.

For three bunches of Grapes the Right Hon. Jas. Round, M.P. (gardener, Mr. Bishop) was first, while Mr. Messenger won for six Peaches, six Nectarines, Melon for flavour, and a dish of thirty Strawberries for weight. The Hon. W. Lowther was first for three dishes of Strawberries, and Mr. G. N. Maynard, Colchester, had the finest flavoured fruits.

Among the most successful competitors in the vegetable classes were Mr. G. N. Maynard, Mr. J. H. Salter, J.P., the Right Hon. J. Round, M.P., and Mr. H. G. Egerton Green.

NON-COMPETITIVE.

Messrs. Wallace and Co., Colchester, exhibited a rockery planted with choice alpine and other plants. Lillium rubellum was charming, so, too, were *L. tenuifolium*, the alpine Pinks, *Watsonia coccinea*, and the *Calochorti*.

Messrs. Dobbie and Co., Rothsay, showed a brilliant group of Sweet Peas in some good sorts. Among the new ones were Bolton's Pink (very good), Scarlet Gem, Florence Molyneux (white splashed with rose), Countess Spencer (pink), Mrs. H. K. Barnes (buff tinged with rose), Janet Scott (rich pink), and others.

Messrs. Ford, Smith and Co., Woodbridge, showed *Schizanthus* and *Chrysanthemum* Morning Star splendidly, together with Cornflowers, Marguerites, and other kinds of hardy flowers.

Mr. E. Abbott, Ardleigh, exhibited a collection of Sweet Peas, including the new sorts Janet Scott, Jeannie Gordon, Anne Johnson, and others.

Messrs. J. K. King and Sons, Coggeshall and Reading, exhibited fifty varieties of Sweet Peas in many good sorts. Messrs. E. W. King and Co., Coggeshall, also showed Sweet Peas in quantity and good variety.

WALTON-ON-THAMES AND DISTRICT ROSE SOCIETY.

THOUGH not extensive, this show, held on the 29th ult., was a very interesting one.

In the class for forty-eight distinct blooms, for which a challenge cup and £2 were offered, Messrs. B. R. Cant and Sons, Colchester, were first with a very fine lot of blooms—White Lady, Bessie Brown, Captain Hayward, Gustave Piganeau, and others; Messrs. George Cooling and Sons, Bath, were second; Messrs. Fletcher Brothers, Chertsey, were third.

In the class for twenty-four blooms Messrs. B. R. Cant and Sons were again first; Messrs. George Cooling and Sons, second; and Messrs. W. Spooner and Son, Woking, third. All in this class showed very fine blooms.

In the class for twelve distinct Teas or Noisettes, Messrs. Cooling and Sons, Bath, were first. Mrs. E. Mawley, Marie van Houtte, and Souvenir de Pierre Notting were good. Messrs. Fletcher Brothers were the only other exhibitors, to whom a third prize was awarded.

For eighteen bunches of garden Roses Messrs. Cooling and Sons, Bath, were first with fine bunches of fresh blooms—Dr. Grill, Liberty, Marquis of Salisbury, Beryl, and others; Messrs. W. Spooner and Son, Woking, were a good second.

For nine bunches of single varieties, Messrs. Cooling and Sons were first with pretty varieties—*Moschata nivea*, Andersoni, *Rugosa rubra*, &c.; Messrs. W. Spooner and Son were second; and Messrs. Fletcher third.

AMATEURS.

In the amateurs' class for eighteen distinct varieties, Mr. Kepple H. Gifford, Sutton, was first with very fine blooms; Mr. W. T. West, Sutton, a good second; and Mr. F. T. Nightingale, Sutton, third. There were five entries in this class, and all were good.

In the class for twelve blooms, distinct (confined to local growers), Mr. E. Mocatta was first with very fine blooms.

For six blooms, distinct varieties, there were seventeen exhibitors, all showing very creditable blooms. Mr. G. Sawday, Weybridge, was first; Mr. C. C. Newman, Shepperton, second; and Mr. A. D. Cooper, Walton-on-Thames, third.

For three distinct blooms there was again a strong competition. Mr. C. C. Newman, Shepperton, being first; Mrs. W. Griffith, Walton-on-Thames, second; and Mr. G. Sawday, third.

In the class for six Teas, distinct, there were two entries; but both were disqualified, as they contained Hybrid Teas and Hybrid Perpetuals.

For six bunches of garden Roses there were four good exhibits. Mr. E. Mocatta was first; and Mr. C. M. Husler, Claygate, second.

In the class for six blooms of one variety Mr. E. Mocatta was first with fine blooms of Bessie Brown; and Mr. C. C. Newman, second, with Frau Karl Druschki.

FLORAL DECORATIONS.

In the class for table decorations, open to gentlemen, Mr. C. C. Newman was first with a neat arrangement of pink Sweet Peas, *Gypsophila*, and Ferns. Mr. F. Copland, Walton, was second, using similar flowers.

In a similar class for ladies, Mrs. E. Smith, Walton-on-Thames, was first. Peas and *Gypsophila* were again the chief flowers used. The second prize went to Mrs. H. L. Gray. Miss H. Houde, who was third, had a light arrangement of Iceland Poppies, yellow and white.

In the class for an epergne or bowl of Roses there were five good exhibits, Miss E. Smith, Walton-on-Thames, being first; second, Mrs. Godden; third, Mrs. West. For a bouquet of Roses there were only two entries, Mrs. Gray and Mrs. Newman being awarded equal second. Baskets of Roses were very good, Mrs. Rushwote, Walton-on-Thames, being first, and Miss N. A. Shepherd second. In the class for Sweet Peas, six varieties, there were seven good exhibits, Mr. E. Mocatta, being first, and Mr. Newman second.

For a group of plants, Mr. F. H. Cook, Walton-on-Thames, was first.

For an epergne of Sweet Peas a pretty arrangement of Countess Spencer and *Vitis heterophylla variegata* took first prize; and Maude, with Asparagus and *Gypsophila*, second.

The classes for hardy flowers were well filled, and there were some very pretty exhibits.

Messrs. Fletcher Brothers, Chertsey, put up a group of hardy flowers, in which *Delphinium formosum* varieties, *Iris Kämpferi*, Sweet Peas, Roses, &c., were good.

Messrs. Barr and Sons made a large exhibit of hardy flowers in their usual good form. Water Lilies, *Delphiniums*, *Irises*, and many other good things were well shown.

RICHMOND FLOWER SHOW.

THE thirty-first annual exhibition of the Richmond Horticultural Society was held in the Old Deer Park, Richmond, on the 28th ult., the weather being fine and the attendance excellent. As for the exhibition, this was in every respect of a high order of merit.

ROSES.

The classes for Roses are a chief attraction each year, and the good prizes offered bring a strong competition.

The chief class is for forty-eight Roses, distinct, three blooms of each, and in addition to money prizes, amounting to £13, the winner of the first prize is for one year entitled to hold the Gunnersbury Park Challenge Cup, presented to the society by Mr. Leopold de Rothschild. On the present occasion Messrs. B. R. Cant and Sons, The Old Rose Gardens, Colchester, took the first prize with a really grand lot of flowers, some of the best being Mrs. J. Laing, Caroline Testout, Mildred Grant (very fine), Frau Karl Druschki, Mme. Gabriel Luizet, Maman Cochet, and Souvenir de President Carnot; Messrs. D. Prior and Sons, Colchester, came second, and here we noted White Maman Cochet, Bessie Brown, Mrs. Edward Mawley, and Mildred Grant, all in superb condition. The third prize was awarded Messrs. Frank Cant and Co., Braiswick Nursery, Colchester.

In the class for twenty-four Roses, distinct, three blooms of each, Messrs. G. and W. H. Burch, Peterborough, took first prize with a very good lot of blooms; Messrs. B. R. Cant and Sons came second; and Messrs. D. Prior and Sons third. Messrs. Burch also took the lead in the class for twelve Roses, three blooms of each, Mildred Grant, Bessie Brown, and Souvenir de President Carnot being exceptionally fine. Messrs. Prior and Sons took the second prize in this class.

In the class for twelve Roses (H.P.'s), one variety, Messrs. Prior and Sons were in the first place with Mrs. J. Laing; Messrs. B. R. Cant second, with Frau Karl Druschki; Messrs. Paul and Son coming third with the same variety.

For twelve Tea Roses, one variety, Messrs. Prior and Sons, Colchester, were again first, the variety being Mrs. Edward Mawley, in splendid form; Messrs. F. Cant and Co. second, with Golden Gate.

In the amateurs' division for Roses the Rev. J. H. Pemberton appeared to be the only exhibitor, taking first place in the classes for twenty-four and twelve blooms respectively. In these Mildred Grant, Caroline Testout, Mrs. Grant, White Maman Cochet, Denmark, and Ulster were seen to advantage.

PLANTS AND CUT FLOWERS.

The classes for Sweet Peas, arranged with their own foliage, brought a numerous competition, the premier award going to Earl Dysart, Petersham (gardener, Mr. J. F. Conway), who staged as fine an exhibit of these popular flowers as we have seen.

The classes for table decorations were strongly contested, the premier award in the lady amateurs' class going to Miss N. H. Cole, Feltham, whose arrangement consisted of Mrs. Lawson Carnation, yellow Sweet Peas, and *Gypsophila elegans*.

Quite one of the features of the Richmond Show are the groups of plants arranged on the turf, usually in a semi-circle and in a space not exceeding 100 square feet. The first prize was awarded to Mr. Justice Swinfen Eady,

Weybridge, whose arrangement of Palms, *Ixoras*, *Carnations*, *Lilies*, and *Gloriosa superba* was very fine; Mr. H. E. Fordham, Twickenham, was second; and Mr. Vause, Leamington, was third.

The class for cut herbaceous flowers brought several well-known growers to the front, Messrs. Paul and Son, Cheshunt, taking the leading place for twenty-four bunches, in which *Helenium*, *Eigelowi*, *Pæonies*, *Dracopcephalum japonicum* (a good blue), *Scabiosa caucasica*, *Campanula Moerhousii*, and *Stachys denticulata* were noted; the Earl of Dysart, Petersham, was second. There were many competitors.

MISCELLANEOUS.

Messrs. George Jackman and Son, Woking, staged a very fine lot of Roses, *Delphiniums*, Sweet Peas, *Iris Kämpferi*, and *Pæonies*. Messrs. Jones and Son, Shrewsbury, showed fine Sweet Peas. Messrs. W. and J. Brown, Peterborough, staged Roses and *Pelargoniums* in good style. Palms and foliage things generally were good as shown by Mr. W. Thompson, Sheen Nurseries, and Mr. L. R. Russell showed a most effective group of *Alcazias*, *Ixoras*, *Nepenthes*, and stove plants generally. A superb lot of Orchids from Sir F. Wigan, Bart., Clare Lawn, East Sheen (gardener, Mr. W. H. Young), attracted much attention, *Cattleya Mendelii* and *gigas*, *Odontoglossum crispum*, *O. cordatum*, *Lælia tenebrosa*, and *Phalenopsis grandiflora rimestadiana* being prominent. A gold medal was awarded, the group not being for competition.

In the competitive class for Orchids, Sir F. Wigan, Bart., took the premier prize.

Messrs. T. S. Ware, Limited, Feltham, had a most extensive exhibit, which contained hardy plants and Water Lilies in profusion, also *Begonias*, border and Tree *Carnations*, and brilliant masses of Rambler Roses. A gold medal was awarded.

Messrs. A. L. Gwillim, New Eltham, Kent, sent a fine lot of *Begonias*. Messrs. Dobbie and Co., Rothsay, had a fine lot of *Pansies* and *Violas*. Messrs. Peed and Sons sent *Gloxinias*, all in excellent condition.

Fruit and vegetables were well staged, Lady Max Waechter's challenge cup, together with a money prize, being awarded to Mr. Justice Swinfen Eady, Weybridge (gardener, Mr. J. Lock), for a collection of fruit, which included Grapes Black Hamburgh and Foster's Seedling, Peaches, Nectarines, Pine-apple, and Melon.

For three bunches of black Grapes, the Right Hon. the Earl of Onslow, Guildford (gardener, Mr. H. W. Blake), was first with extra fine Madresfield Court; and for three bunches of white Grapes Mr. Justice Swinfen Eady (gardener, Mr. J. Lock), came first with excellent Foster's Seedling.

For the best display of vegetables, not less than nine distinct varieties, Sir E. W. Bulkeley, Bart., Beaumaris, North Wales (gardener, Mr. J. H. Bolton), was first, having Potato Windsor Castle, Pea Duke of Albany, Tomato Duke of York, Cucumber Telegraph, with Cabbage Heartwell, Beans, Onions, &c. This was a really fine exhibit.

WINDSOR AND ETON ROSE SHOW.

THE fourteenth annual show of this society was held on the 1st inst. under very favourable conditions; although the weather was very unsettled the sun broke out on the morning of the show, converting at the last moment what would have been failure into success. The society is fortunate in having such an ideal place for holding their show, His Majesty the King allowing them the use of the grounds at the foot of the beautiful slopes at Windsor Castle. Most of the classes were keenly contested, and the excellence of the exhibits testified to a very favourable season for Rose growing. A special interest was centred in the open class for the cup presented by Her Majesty the late Queen Victoria. The conditions are that it must be won by the same competitor for three years. It had already been won twice by Messrs. B. R. Cant and Sons, Old Rose Gardens, Colchester; Dickinson and Sons, Newtownards, and Harkness and Co., Hitehin, respectively, so that a keen struggle was anticipated. Messrs. B. R. Cant and Sons eventually carried off the cup with a splendid lot of blooms. White Maman Cochet, La France, Tom Wood, Mildred Grant, Ulrich Brunner, Bessie Brown, Robert Scott, Mrs. J. Laing, Her Majesty, Mme. Cadeau Ramey, and Frau Karl Druschki were some of the best in this stand. Messrs. A. Dickson and Sons, Limited, were a good second, Messrs. D. Prior and Sons third, and the King's Acre Nurseries fourth. There were eight exhibits in this class.

For eighteen Teas or Noisettes Mr. George Prince, Longworth, was first with a lovely stand of fresh, well-formed flowers. Mrs. E. Mawley, Comtesse de Nadaillac, White Maman Cochet, Mme. Hoste, Catherine Mermet, and Souvenir de Pierre Notting were among the best; second, Messrs. B. R. Cant and Sons; third, Messrs. D. Prior and Sons.

For twelve distinct, Messrs. A. Dickson and Sons were a good first, with splendid blooms of Mildred Grant, Bessie Brown, Alice Lindell, Ulrich Brunner, and Mrs. J. Grant; second, Messrs. B. R. Cant; third, Messrs. D. Prior.

For twelve trusses, H.P. or H.T., Messrs. A. Dickson were first with a beautiful stand of Mildred Grant. Messrs. B. R. Cant and Sons were a close second with Bessie Brown.

For twelve trusses, any Tea or Noisette, the King's Acre Nursery Company, Limited, Hereford, were first with excellent blooms of Mrs. E. Mawley. Messrs. G. Prince and D. Prior were second and third respectively with the same variety.

For eighteen bunches of garden or decorative Roses Messrs. F. Cant and Co. carried off the honours with a splendid exhibit. Among the best were Liberty, Mme. Jean Dupuy, Gardania, Marquis of Salisbury, and Antoine Rivole; second, Messrs. Paul and Son, Cheshunt; third, Mr. Charles Turner, Slough.

For six distinct varieties in vases Messrs. A. Dickson were first with fine Bessie Brown, Florence Pemberton, and Mildred Grant; second, Mr. Charles Turner; third, Mr. George Prince.

AMATEURS.

For thirty-six distinct trusses the Rev. J. H. Pemberton was a splendid first. Frau Karl Druschki, Florence Pemberton, Dean Hole, Alice Lindsell, Maman Cochet, Kil-larney, and Papa Lambert were excellent; second, A. Tate, Esq.; third, R. Foley Hobbs, Esq.

For six trusses, one variety, A. Tate, Esq., was first with Bessie Brown; second, Dr. Lamplough, with Frau Karl Druschki; third, Rev. J. H. Pemberton.

For twelve trusses the Rev. J. H. Pemberton was first with splendid Mrs. E. Mawley, Maman Cochet, White Maman Cochet, The Bride, and Golden Gate; second, O. G. Orpen, Esq.; third, A. Tate, Esq.

For six distinct, three blooms of each, R. Foley Hobbs, Esq., was first with grand Horace Vernet, Kaiserin Augusta Victoria, Mildred Grant, and Bessie Brown; second, T. B. Gabriel, Esq.; third, A. Tate, Esq.

For twelve distinct garden or decorative roses, A. Tate, Esq., was a splendid first with Crimson Damask, W. A. Richardson, Birdou Job, Gustave Regis, Augustine Guinoisseau, and Macrantha; second, W. Colin Romaine, Esq.

For twenty-four distinct, single trusses, T. B. Gabriel, Esq., was an excellent first with splendid flowers; second, O. G. Orpen, Esq.; third, W. Colin Romaine, Esq.

Twelve distinct: First, Dr. Lamplough; second, G. A. Hammond, Esq.; third, E. B. Lehmann, Esq.

For eighteen distinct (amateurs within ten miles of Windsor) the Windsor cup is given with the first prize: First, J. B. Portescue, Esq., with grand examples of Mamie, Bessie Brown, Mrs. E. Mawley, Papa Lambert, Frau Karl Druschki, and Ulrich Brunner; second, W. Colin Romaine, Esq.; third, A. F. G. Vett, Esq.

Twelve distinct: First, Rev. J. B. Shackleton with splendid Bessie Brown. The best amateur's rose in the show was Mildred Grant, shown in this stand. Second, W. A. Probert, Esq.; third, Mrs. River Hollings.

The local classes were all well filled, and some really good blooms were shown. Table decorations filled one tent. Mrs. E. Gould carried off the honours with a delightful arrangement of Aquilegias, Sweet Peas, Gypsophila, Smilax, &c.; second, Miss Elliot; third, Miss K. R. Devett.

Group of plants (the Marchioness of Normanby's cup is attached to this class): E. Vagg, Esq., was first with a group of splendid plants tastefully arranged; A. F. Govett, Esq., was a good second; W. A. Stearns third. A pleasing feature of the show was the excellence of the vegetables shown by cottagers.

Nurserymen contributed largely to the success of the show. Messrs. John Sandish and Co. showed a splendid group of Carnations and Roses; George Jackman and Son, Roses and hardy flowers; E. F. Such, Maidenhead, Roses and hardy flowers; J. Veitch and Sons, Rees and hardy flowers; John Peed and Son, Gloxinias and Begonias; Charles Turner, Roses, hardy flowers, &c.; Dobbie and Co., Sweet Peas, Pansies, and Violas; Thomas Ware, Feltham, hardy flowers and Water Lilies. Messrs. Titt and Son of Windsor had a lovely display of floral designs.

THE SWEET PEA SHOW.

THE National Sweet Pea Society held their fifth annual exhibition in the hall of the Royal Horticultural Society, Vincent Square, S.W., on Tuesday last. It was a great success, and far the finest show ever held by the society. There was a record number of exhibitors, and Sweet Peas practically filled the hall.

OPEN CLASSES.

Nineteen bunches of Sweet Peas (special audit class). The varieties must be certain ones specified. The Sutton Silver Challenge Cup, presented by Messrs. Sutton and Sons, Reading (value 15 guineas) is given with the first prize in this class, to be held by the winner for one year. The committee give a gold medal. The judging of this class caused a great deal of difficulty. The rule was that twenty sprays should form a bunch, and several competitors had exceeded this quantity. No less than eight exhibitors were disqualified. The judges finally awarded the first prize to Mr. F. Stevenson, The Gardens, Woburn Place, Addlestone, who had a fair lot of flowers. It is probable that if some of the others had not been disqualified the first prize would have been awarded elsewhere. Lovely, Lottie Eckford, Miss Willmott, Black Knight, and others were well shown. Second, Mr. H. Parr, Trent Park Gardens, New Barnet; third, Mr. W. Taylor, Sutton Scotney.

Collection of nineteen varieties of Sweet Peas, one variety only of each colour given in the classification table to be shown: First, Messrs. George A. Clark, Limited, Dover, with, needless to say, a very good collection, King Edward VII (crimson), Prince of Wales (rose), Mrs. W. Wright (light purple), Duke of Westminster (dark purple), Coccinea (red), Hon. Mrs. Kenyon (pale yellow), and many more distinct colours were shown; second, Mr. W. Firth, Wistow Hall, Leicester (gardener, Mr. F. Clark); third, Mrs. A. Figwell, Greenford, Middlesex.

Thirty-six bunches, distinct: First, Mr. A. G. Hayman, Hapsford House, Frome (gardener, Mr. F. Ackland), with a beautiful lot of flowers. Countess Spencer, Prince of Wales, Janet Scott, Emily Eckford, Dainty, King Edward, and Scarlet Gem were finely shown. The second prize was taken by Mr. C. W. Broomhead, High Street, Winchester. The third prize was won by Messrs. Isaac House and Son, Westbury-on-Trym, Bristol.

The first prize for twenty-four bunches of Sweet Peas was won by Messrs. Saltmarsh and Son, Chelmsford, with a pretty selection. King Edward, Mrs. W. Wright, Dorothy

Eckford, Miss Willmott, and others were good; second, Messrs. G. Stark and Son, Great Ryburgh, Norfolk; third, Mr. C. W. Broomhead, Winchester.

Twelve bunches, distinct: First, Mr. A. Malcolm, Duns, N.B., with splendid flowers. Edward VII, Bolton's Pink, Lady G. Hamilton, D. R. Williamson, Scarlet Gem, and others were very fine; second, Mr. T. Duncan, Fogo Schoolhouse, Duns; third, Mr. J. Watson, The Gardens, Oxford House, Ham Common.

TRADE EXCLUDED.

Twenty-four bunches of Sweet Peas, distinct: First, Mr. T. Jones, Ruabon, with a brilliant show. King Edward VII., Countess Spencer, Dorothy Eckford, and other good sorts were shown; second, Mr. A. F. Wooten, Croft House, Epsom; third, Mr. H. H. Rawnsley, Alford. There were numerous entries.

The first prize for eighteen bunches distinct was won by Mr. T. Stevenson, The Gardens, Woburn Place, Addlestone—Countess Spencer, Miss Willmott, Prince of Wales, and Gorgeous were some of the best in an excellent lot; second, Mr. E. Bewley, Rathgar, County Dublin; third, Mr. Winterbottom, Aston Hall, near Derby.

The first prize for twelve bunches distinct was taken by Mr. W. A. Bankier, Clock House, Epsom, with very good blooms, especially of Dorothy Eckford and New Countess; second, Mr. M. F. Hitchins, Trevarrick, St. Austell; third, Mr. J. T. Blencowe, Eastcott Gardens, Kingston Hill.

Nine bunches distinct: First, Mr. C. K. Wild, The Grange, New Eltham, Kent (gardener, Mr. Jackson), with a charming lot of flowers; second, Mr. M. Y. Green, The Lodge, Eynsford; third, Mr. S. F. Jackson, Danehurst, Epsom.

OPEN TO ALL.

In the class for six bunches of Gladys Unwin, Mr. J. Jones, of Wem, Salop, was first with fine blooms of a lovely colour.

For best collection, one bunch each of Mrs. G. Higginson, jun., Flora Norton, Speckled Beauty, Nymphaea, Sunrise, Sunset, and Janet Scott: First, Mr. W. P. Wright; second, Mr. M. Firth; and third, Mrs. Tigwell. All of the varieties in this class are of soft and delicate shades of colour.

In the class for two bunches of white, distinct varieties, first prize was gained by Mr. W. J. Noy, Brentwood, with Blanche Burpee and Dorothy Eckford; second, Messrs. Saltmarsh and Son; third, Mr. Dawson.

For two crimson Mr. M. Firth, Leicester, was first with Scarlet Gem and King Edward; second, Mr. W. P. Wright, Hythe, with King Edward and Salopian; third, Messrs. Jones and Sons, Shrewsbury.

In the class for two blush Mr. C. W. Broomhead, Winchester, was first with Sensation and Duchess of Sutherland; second, with same varieties, Mr. H. Aldersey; third, Messrs. I. House and Son.

For two cerise Messrs. W. E. King and Co., Coggeshall, were first with Coccinea; second, Mrs. A. Tigwell.

In the class for rose and carmine, Mr. H. Aldersey was first with Mrs. Dugdale and Prince of Wales; second, Mr. J. Watson, Ham Common, with Royal Rose and Prince of Wales.

In pink shades Mr. T. Proctor, Carnforth, was first with Mrs. M. Smith and Countess Spencer; second, Messrs. Jones and Son, with Janet Scott and Countess Spencer; third, Messrs. G. Stark and Son, Great Ryburgh, with Gladys Unwin and Enchantress.

In orange shades, Messrs. Jones and Son were first with Gorgeous and Miss Willmott; second, Mr. J. T. Blencowe, Kingston Hill, with the same varieties; third, Mr. J. Watson, with Lady Mary Currie and Miss Willmott.

Yellows or buff: First, Mr. W. J. Noy, with Lady Ormesby Gore and Hon. Mrs. Kenyon; second, Mr. W. P. Wright, with Queen Victoria and Hon. Mrs. Kenyon.

For lavender, Mr. H. Aldersey was first with Countess of Radnor and Lady Grizel Hamilton; second, Messrs. Jones and Son, Shrewsbury, with New Countess and Lady G. Hamilton; third, Messrs. Clark, Dover.

For blues, Messrs. Jones and Son were first, with Navy Blue and Captain of the Blues; second, Mr. Aldersey, with Emily Eckford and Countess Cadogan; third, Messrs. G. Stark and Son with D. R. Williamson and Miss Philbrick.

For mauve, Messrs. Clark, Dover, were first with Dorothy Tennant and Mrs. Walter Wright.

For violet and purple, Mr. Blencowe was first with Mrs. W. Wright and Duke of Westminster; second, Mr. J. Watson with the same varieties.

For maroon or bronze, Mr. Blencowe was first with Othello and Black Knight; second, Mr. Noy, with the same varieties.

For magenta, Messrs. Jones and Son were first with Calypso and George Gordon; second, Mrs. Tugwell, with the same varieties.

For Picotee edged, Mr. M. F. Hutchins, St. Austell, was first with Lottie Eckford and Dainty; second, Mr. R. Bolton, with the same varieties; third, Mr. W. P. Wright, who also had the same varieties.

For striped and flaked (red or rose), Messrs. Clark, Limited, were first with America and Aurora; second, Messrs. Stark and Son, with Jessie Cuthbertson and America.

For purple or blue-striped or flaked, Mr. Hitchins was first with Princess of Wales and Senator. In the class for bicolors, Mrs. Blencowe was first with Jeanie Gordon and Triumph; second, Mr. J. Watson with Prince Edward of York and Triumph. For fancy varieties, Mr. Hitchins was first with Agnes Johnson and Gracie Greenwood; second, Mr. J. Watson, with Duchess of Westminster and Gracie Greenwood.

TRADE EXCLUDED.

Two bunches of Dora Broomhead: First, Mr. A. Malcolm, Duns, with splendid blooms; second, Mr. T. Proctor; third, Dr. Boxall.

Two bunches of Lady Aberdare: First, Mr. G. Crabbe, Addlestone; second, Mr. Firth; third, Mr. W. Taylor, Sutton Scotney. Two bunches of Bolton's Pink: First, Mr. E. Bewley, Rathgar, County Dublin; second, Mr. T. Jones, Ruabon; third, Mr. W. Wright.

In the class for one bunch each of Dorothy Eckford, Romolo Piazzani, Scarlet Gem, D. R. Williamson, Black Michael, and Mrs. W. Wright, Mr. E. Bewley was first; second, Mrs. Firth; third, Mr. T. Jones.

In the classes for Cupid Sweet Peas in pots there was only one exhibitor, and the specimens were very poor.

Table decorations in Sweet Peas were a very strong class; the tables were 8 feet by 3 feet. In this class there were twelve competitors, Mr. E. J. Sell, Luton, taking first prize with a light arrangement of mauve and bronze-pink. Mrs. Beckett, Elstree, was second with a pretty arrangement of Countess Spencer and Lottie Eckford.

OPEN TO ALL.

Mr. W. Marple, in a similar class for table decoration, secured first prize with a light arrangement of delicate pink and buff; second, Miss C. B. Cole, Feltham with Miss Willmott and Hon. Mrs. Kenyon (a very pretty mixture).

Epergne or stand filled with Sweet Peas: In this class there were about a dozen good stands. Miss E. B. Cole, Feltham, secured first; second, Mrs. F. Brewer, Richmond; third, Messrs. Jones and Sons.

For vase of Sweet Peas in mixed colours, with grasses, &c., there were a good many competitors. Mr. A. G. Hayman, Frome, was first, Miss C. B. Cole second, and Mrs. Brewer third.

Bowl of Sweet Peas: There were about a dozen good exhibits. Mr. C. W. Broomhead, Winchester, took the first prize, Mr. W. J. Noy second, and Miss Wheeler, Wheatley, near Alton, Hants, third.

NON-COMPETITIVE EXHIBITS.

A great deal of interest centred in the group shown by Mr. Henry Eckford, Wem, Shropshire, for it contained many fine varieties. Some of the most remarkable were Queen Alexandra, a good deal like Scarlet Gem, but rather a deeper colour, and said to be sun-proof; Romolo Piazzani, rich violet-blue; Horace Wright, the standard dark purple, the wings brighter purple; Countess Spencer, richest pink; Dorothy Eckford, white; Miss Eckford, pink-buff; Scarlet Gem, rich crimson-scarlet; Little Dorrit, standard rose, wings pale pink or white; Miss Philbrick, true light blue; and John Ingman, rich lake. The finest of all, however, was Henry Eckford, unique in its rich orange-salmon colouring.

Messrs. G. and A. Clark, Limited, Dover, showed a bright group. Gorgeous, orange and red; Triumph, rose and blush; Scarlet Gem; America, striped and flushed with red on a white ground; and Countess Cadogan, rich purple-blue, were some of the best.

Mr. Robert Bolton, Warton, Carnforth, showed vases full of splendid flowers. The varieties were unnamed, but we recognised Bolton's Pink, which was finely shown.

Messrs. E. W. King and Co., Coggeshall, Essex, showed a collection of Sweet Peas in many of the best sorts. Miss Willmott and King Edward VII. were two of the most effective.

Messrs. Charles W. Broomhead, Winchester, set up a group of Sweet Peas that contained the best of the varieties sent out.

Bakers, Wolverhampton, had a delightful exhibit of Sweet Peas effectively arranged. Codall Rose, Orange Countess, Countess Spencer, Dorothy Eckford, and many others were well shown.

Messrs. J. Carter and Co., High Holborn, W.C., arranged numerous varieties in a pretty group. Lady Mary Currie, Prince Edward of York, Miss Willmott, Orange Prince, and others were included.

Messrs. G. Stark and Son, Great Ryburgh, Norfolk, exhibited a collection of Sweet Peas, the finest vase of all being Countess Spencer. The varieties were unnamed.

Messrs. Jones and Sons, Shrewsbury, showed a very bright group of flowers, such good sorts as Scarlet Gem, Mrs. Walter Wright, Prince of Wales, Agnes Johnson, Apple Blossom, Gladys Unwin, and others being well presented.

Messrs. Gilbert and Son, Anemone Nurseries, Dyke, Bourne, Lincs, arranged a group of Sweet Peas, the blue varieties being very fine. Countess Spencer, Scarlet Gem, Prince of Wales, and other good things were included.

Some pretty table decorations with Sweet Peas were shown by Mr. Williams, Oxford Road, Ealing.

The Sweet Peas from Messrs. Dobbie and Co., Rothesay, made a brilliant mass of colour, such good things as Orange Countess, Miss Willmott, Emily Henderson, Prince of Wales, Scarlet Gem, Lady Aberdare, D. R. Williamson, and many more being freely shown.

The group set up by Messrs. Cannell and Sons, Swanley, contained many good sorts, e.g., Emily Eckford, Lady Gore, Miss Willmott, Jessie Cuthbertson, Jeannie Gordon, Evening Star (pink buff), Salopian, Mrs. G. Higginson (pale blue), and others.

Mr. W. J. Unwin, Histon, Cambridge, showed some very fine vases full of Sweet Peas, whole flowering shoots being arranged with good effect.

Messrs. Watkins and Simpson, 12, Tavistock Street, Covent Garden, in their group, showed Evelyn Byatt, the standard orange-red, the wings deep rose, a very bright colour; Gladys Unwin, the beautiful pink; Flora Norton, blue; Phyllis Unwin, rich rose and others.

Messrs. Peed and Son, West Norwood, S.E., exhibited an excellent lot of Sweet Peas in variety, all the best sorts being shown.

Messrs. Barr and Sons, King Street, Covent Garden, set up a splendid group of Sweet Peas, the colour good, the varieties distinct, and the vases well arranged. Gorgeous, King Edward, Lady G. Hamilton, Hon. Mrs. Kenyon, Scarlet Gem, and others were included.

THE GARDEN

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JULY 15, 1905.

SUMMER PRUNING OF SHRUBS.

SHRUBBERIES, to a greater or less extent, come, in the majority of instances, under the care of the gardener. Some allow their occupants to grow uncontrolled after planting, and this may be admissible in woodland drives or in extensive pleasure grounds, but it will not suit in a limited space, or where the surroundings are of a formal character. In many cases shrubs are about the last things to be attended to in the busy time of spring and early summer. If, however, they are to be kept attractive and each subject separate from its neighbour, as should be the case in the mixed shrubbery, pruning must be systematically carried out at least annually, and in many cases much oftener, or the plants will soon get unshapely and over-grow each other. Let us separate the shrubs with which we intend to deal into those grown principally for flowering, many of which are deciduous, and those grown for their evergreen or ornamental foliage. In the first-named section some knowledge is necessary as to habit and time of flowering before cutting is commenced. We prune and thin fruit trees or bushes to keep them within bounds and to increase the quantity of fruits, which first of all have to be preceded by flowers; why not, then, apply the same system to shrubs? Probably the majority of shrubs make their flower growth the previous year; consequently to cut back late in autumn or before flowering takes place in spring simply destroys the whole of the flowers for that season. As soon as possible after flowering is over is the best time to prune all shrubs belonging to this class, thinning the branches where crowded and removing the old wood that has borne the flowers to make room for the growth of new shoots for the succeeding year. Forsythias, Deutzias, Weigelas, shrubby Spiræas, Genistas, Lilacs, Viburnums, and many others may be so treated. If allowed to grow at will, as perhaps some would recommend, their shape and limits are soon outgrown, and measures much more severe have eventually to be taken. Berberis Darwini may be kept somewhat dwarf and yet flower very freely if planted young and the leading growths are either shortened or tied in annually, but

allow these to grow up and the plants soon become unsightly at the bottom. When the plants get old and are cut down strong shoots are produced which do not flower well for some time. Evergreen shrubs now in flower are *Zenobia speciosa* and its variety *Z. s. pulverulenta*. The chief distinction belonging to them is found in the leaves. Those of the species are pale green and rather smaller than those of the variety; the latter being of a distinct glaucous colour. The flowers, which are in racemes, are white and bell-shaped and produced on the wood of the previous year; this should, therefore, be removed annually after flowering in the same way as others previously noticed. *Zenobias* grow to a height of 3 feet or 4 feet. They succeed well in peaty soil, and should be planted preferably in a group by themselves.

The growths of *Rhododendrons* cannot be cut away without reducing the number of flowers for the next year. On the other hand, if allowed to grow thickly in clumps without cutting, the inner and under-growths soon have to succumb to the stronger ones. For clumps of these to be kept low the common *R. ponticum* should be used, as its flowers are not of so much importance as those of better sorts, and the plants soon thicken again after severe cutting, should that be necessary. Hybrid varieties are too good for this treatment; consequently, positions should be given them where they can be allowed to grow up, merely thinning a little and removing superfluous shoots with the seed-pods, should the latter be practicable, after flowering is over. Formal clumps of *Rhododendrons* may often be met with, but the plants do not often show themselves so well individually as when grown somewhat more naturally as single specimens. The height of the plants in clumps should be in proportion to the length and width of the clump, and they should gradually rise from the edge to the middle. Nothing looks worse than to see plants at 3 feet up projecting over those at the edge. No doubt there are many clumps somewhat similar to this in different places at the present time, and those in charge of them may be wondering what is to be done in order to restrict them. In our case many were severely cut into shape last year, and were of necessity very unsightly for some time, but they are now well furnished with foliage to the Grass edge, and

this year but little cutting will be required. If annual pruning with the knife had been practised, the necessity for such severe measures would have been obviated. Other clumps in a similar state are being treated in the same way this year, and those cut a month ago are breaking out freely. The earlier they are taken in hand the better, in order that the young growths may get well ripened before winter, but where much pruning has to be done some have to wait until their turn comes. Hardy Azaleas do not grow so strongly as *Rhododendrons*; consequently they are not so difficult to keep within bounds. In that case pruning is but little required, as they form themselves into fairly good shape if allowed sufficient room. The same remarks apply to *Ledums*, *Kalmias*, and *Pieris (Andromeda) floribunda*.

Most of the evergreen and ornamental-foliaged section previously mentioned may with advantage be cut over occasionally in summer, or pruned as each subject may require according to the position which it is meant to occupy. A sloping bank of the smaller-leaved sorts of common Laurels looks well when the plants are established and cut over evenly with the knife two or three times during the summer. Dwarf clumps of these may be treated in a similar way, and the plants, except they are very old, break well when cut back hard. *Berberis Aquifolium* is also well adapted for certain positions, but, as a rule, it does not transplant successfully except when young. *Aucubas* grow somewhat flat and uneven if allowed to have their own way; remove and thin some of the growths and the plants will be greatly improved thereby.

In mixed shrubbery borders each plant should have sufficient room, and those in the front line should be of a dwarf-growing character, or such as can be kept dwarf without being unsightly. Pruning should all be done with the knife, or special shears for the purpose that cut in the same way as secateurs. Where these are used none of the leaves left are injured, and much of the cutting cannot be detected by outward appearances. Summer pruning of trees is chiefly limited to removing growths from side branches that take a lead, and are apt to injure the top growth. Deodars may in many cases be greatly improved by shortening some of the branches that grow in this

way, but great care must be taken in doing it to keep the trees symmetrical. The same remarks apply to many other trees in large collections.

JUNE FLOWERS IN SOUTH DEVON.

THE droughts of April and May and the easterly winds of the former month, though unfavourable to vegetation, had apparently but little effect upon June flowers except in a few isolated instances.

Among flowering shrubs *Abelia floribunda* was bright with countless clusters of long, drooping, rose-coloured blossoms, the two varieties of *Abutilon vitifolium* produced their large flat flowers of mauve or white, and *Agathaea celestis*, which has been in bloom more or less through the entire winter, came into full flower. At the commencement of the month *Calceolaria violacea* still held many of its helmet-shaped, golden-throated, lavender blossoms, and, towards the close, *Callistemon salignus*—known to nurserymen as *Metrosideros floribunda*—was decked with its crimson bottle-brushes. In the first days of the month a large plant of the lovely *Veronica hulkeana* was a cloud of lavender, and hard by *Convolvulus Cneorum* was spangled with its white blooms.

Of the Rock Roses, the most notable was the rare *Cistus ladaniferus maculatus* (true), with its great white, claret-spotted flowers fully 5 inches across. *Deutzia kalmiaeflora*, the prettiest of Lemoine's new seedlings, was very charming, and *Diervilla Conquete*, with large rose-pink flowers fully 2 inches across, proved an acquisition.

A bush of *Dimorphotheca Ecklonis*, about 4 feet in height and as much through, which has been unprotected in the open for two winters, was covered with its white, purple-centred blossoms, and the refined *Diosma gracilis* had its delicate foliage starred with its tiny white flowers. *Edwardsia microphylla*, in bush form, bore its yellow blooms, and the gorgeous *Embothrium coccineum* flamed with its vivid vermilion flower-clusters, while a large tree of *Eucalyptus globulus*, on which last year's seed-pods were hanging, came into fine bloom. The Night-scented Stock, *Mathiola bicornis*, a small sub-shrub but rarely met with nowadays, produced its dull-coloured flower-spikes, deliciously fragrant after twilight, and *Mitraria coccinea* was brilliant with its drooping scarlet mitre-shaped blooms.

The Alabama Snow-wreath, *Neviusia alabamensis*, at the opening of the month was still holding its curious flowers, devoid of petals, with a crowd of white anthers set in green bracts. The Musk-leaved *Olearia argophylla* flowered, as did *O. macrodonta* and *O. stellulata*, and a small bush of *O. nitida*, about 2 feet in height, was entirely smothered in flat clusters of white Hawthorn-like flowers, while *Ozothamnus rosmarinifolius* was a cloud of creamy white. *Solanum aviculare*, in bush form, has produced its handsome golden-centred, purple-blue flowers, to be followed by yellow, egg-shaped fruits; *S. crispum*, which was at its best in May, continued to bloom through the month; and *S. jasminoides* has been in flower for some weeks, and will not be out of blossom before December. *Androsace lanuginosa* is perfectly at home, and, from two

small plants in 2½-inch pots put out two years ago, has spread until it covers a space 4 feet square. *Ethionema pulchellum* has also flowered well. *Aristea Ecklonis* is an interesting Cape plant, and has thrown up several branching flower-stems about 18 inches in height, each branchlet being terminated by star-shaped gentian-blue flowers. *Arthropodium cirrhatum* has perfected its white bloom-sprays, the dwarf *Aster Stracheyi* flowered early in the month, and towards the close the taller *A. sikkimensis* opened its bright lavender flowers. *Arctotis aureola robusta*, which has been unprotected through the winter, commenced to flower early in March and is now very showy, its large, bright orange flowers being well thrown up by a dark background. *A. aspera arborescens* is also blooming well. The Dropmore variety of *Anchusa italica* is a splendid sight, fully 6 feet in height, and *Argemone grandiflora* gives a foretaste of *Romneya Coulteri*, so like are its blossoms. This is supposed to be merely of annual duration, but all my plants threw up strongly from the rootstock, and now are over 3 feet in height.

Cypella Herberti opened its first flower on the 29th ult., and will now continue to expand blossoms daily until the end of October. *Herbertia pulchella* flowered in the early days of the month, when *Sparaxis Fire King* and the *Ixias* were still brilliant. Of all the bulbous plants, however, none are so striking as *Tritonia crocata*, whose glowing orange-scarlet flowers have been quite the feature of the garden. *Ixiolirion montanum* is an improvement on *I. tataricum*, being considerably taller and bearing more and larger flowers of the same colour. A rarely seen but very beautiful bulbous plant is *Habranthus pratensis*, with heads of bright scarlet flowers not unlike a *Vallota* in shape, and almost as large. *Codonopsis ovata*, though of evil smell, is one of the most beautiful of June flowers, and its pale lavender bells with their internal markings of black, orange, and purple, are very delicate. *Digitalis obscurus* and *D. ambigua* are both in flower, as well as the bright crimson *Dianthus Atkinsoni* and the salmon-pink semi-double *D. Emilie Paré*. Plants of *Gerbera Jamesoni* are bearing their brilliant crimson blossoms, *Geranium grandiflorum* is flowering well, and *Gazania longiscapa*, which has been out over four years, is 3 feet across. *Hunnemannia fumarifolia*, which is unharmed by the winter, is bearing its yellow Poppy-like flowers, and *Iberis gibraltaria*, planted in a perpendicular stony bank, was a mass of bloom early in the month. *Jaborosa integrifolia*, now a rare plant, is throwing up dozens of its white, scented blooms, and immense clumps of *Libertia formosa*, 5 feet in height, have borne hundreds of flower-wands. *Oenothera marginata* has expanded its great white scented chalice, but, owing to the disastrous gale of April 31, *O. trowskii magnifica* has been a failure. Half of the plants were broken off at the ground level, and the remainder lost every leaf. *Ourisia coccinea* on a shady ledge was a bright picture early in the month with fifty tall flower-spikes of glowing scarlet. The white-flowered *Pentstemon tubiflorum* is a rarely seen but pretty plant. *Rehmannia angulata* has borne its rose-coloured Gloxinia-like blossoms through the month, and of the *Sisyrinchiums*, *S. bermudianum*, the more graceful *S. chilense*, and the yellow *S. iridifolium* are now in flower. *Tulbaghia*

violacea is a pretty Cape plant, and is now bearing its heliotrope-pink bloom-heads. Of Roses, reference may be made to the fine single white *Rosa laevigata*, 5½ inches across, and to the single yellow *R. xanthina* or *Ecæ*; and of climbers, to the scarlet and yellow *Mannettia bicolor* and the blue *Sollya heterophylla*.

South Devon.

S. W. FITZHERBERT.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

July 18.—Royal Horticultural Society's Meeting (Carnation and Picotee Show); Gloucester (N R S. Provincial) Rose Show.

July 20.—Halifax and Dunfermline (two days) Rose Shows; Horticultural Club Outing.

July 25.—Tibshelf Rose Show.

August 16.—Bishop's Stortford Flower Show.

August 19.—Sheffield Rose Show.

August 23.—Shrewsbury Floral Fête (two days).

***Spiraea flagelliformis*.**—I enclose a photograph of *Spiraea flagelliformis*, which I thought might be of interest. I put this plant in last autumn twelve months in a prepared station on a lawn, using mostly rotted refuse mixed with our sandy soil. I cut out all the old wood, as the plant was an unsightly tangle, but kept all the new wood, which I trained out with Bamboos. It did not flower the first year, but made good growth, and this year it has flowered abundantly. Any plant of a more delicate and graceful habit it would, I think, be hard to find, though doubtless the early-flowering *Spiraea arguta* would run it close. The photograph is not what it should be, but it gives a good idea of the habit and style of the plant. Surrounded with *Erica carnea* it makes a very pleasing object in the way of a lawn shrub.—T. G. WELCH, *The Oaks, Blakebrook, Kidderminster*.

Richard Dean Testimonial Fund.

At a meeting of the committee of the above on Monday week last the secretary reported with regret that donations were coming in very slowly, and as the presentation had been fixed to take place on Wednesday, the 12th inst., at a dinner to be held at Carr's Restaurant, 264, Strand, at 7 p.m., it was resolved to carry that out, but not to close the fund on that day, as the annual outing of the National Chrysanthemum Society takes place on the following Monday, which might remind some who have not already contributed to it, and which amounts can be handed privately to Mr. Dean by the honorary secretary. Application for dinner tickets (4s. each) can be made to J. H. Witty, honorary secretary, St. James's Villa, Swains Lane, Highgate, N.

Isle of Wight Rose Show.—The annual Rose exhibition was held on Coronation Day at Ventnor, and an excellent display resulted. Messrs. B. R. Cant and Sons, Colchester, were first for twenty-four Roses, distinct; Messrs. D. Prior and Son, Colchester, won for twelve Teas; Messrs. Frank Cant and Co., Colchester, for eight varieties, three blooms of each. In the amateur classes, Mr. T. B. Gabriel, Woking, was first for eighteen distinct Roses; Dr. S. Eaton, Lymington, winning for twelve Teas. The Rev. G. E. Jeans was the only competitor for the challenge cup offered to members for the best twenty-four Roses, distinct, and his blooms were so fine that the cup (which goes with the first prize) was awarded. Mrs. E. Croft Murray was a very successful exhibitor in the amateurs' classes, winning the first prize for six bunches of garden Roses and several other first prizes. Mrs. Murray gained the King's gold medal for twelve distinct Roses, the silver medal for the best Tea Rose (Mrs. E. Mawley) in the show, and the bronze medal for the best Hybrid Perpetual.

Escallonia langleyensis.—The majority of the *E. callonia*s can only be depended upon to thrive really well out of doors in the warmer parts of the country, reaching their greatest state of perfection near the coast in the south-west counties. There are, however, a few which are very satisfactory in places with a less salubrious climate, and of these *E. philippiana*, one of the parents of the above plant, is the hardiest. *E. langleyensis*, though not so hardy as *E. philippiana*, is of robust constitution, and thrives well in the open in many places, while it can be depended on to behave admirably when against a wall. Its other parent is *E. macrantha*, and the inflorescence resembles this more closely than the other, the leaves being nearer the size of those of *E. philippiana*. The habit of the shrub is graceful, the branches being light and semi-pendent. The leaves are small and dark green, and have serrated margins, the teeth on the upper half being much deeper than those on the lower portion. The flowers are of a beautiful deep rose, and borne in short, terminal racemes. When planting it is a mistake to give too rich soil, as then it grows rapidly and does not become so well ripened as when growth is slower and less sappy.—W. D.

Sandersonia aurantiaca.—This is an extremely pretty Lilaceous plant which, in its curious bifurcated tubers and their manner of growth, suggests that well-known inhabitant of the tropics, *Gloriosa superba*, from which, however, the flowers differ widely. In the case of this *Sandersonia* the slender, twining stems reach a height of 3 feet to 5 feet, and are clothed with thin bright green lanceolate leaves. The flowers, which are borne singly on long, slender stalks from the axils of the leaves on the upper parts of the shoots, are broadly urn-shaped, nearly an inch in diameter, and of a bright orange colour. Though not very thick in substance, they remain fresh for some time. This *Sandersonia* is not at all a difficult plant to grow, and, unlike many other South African bulbs and tubers, it may be grown well year after year in an ordinary greenhouse, provided a little care and attention are given it. Soon after flowering the stems show signs of dying down, and when this happens the water supply must be lessened, and when totally dormant discontinued altogether. They are best wintered in the pots they have grown in, and, if stood on a stage in the greenhouse, they will in all probability require no water till the new year. By February the plants may be turned out of their pots, shaken quite clear of the old soil, and the tubers be repotted in a mixture of loam, leaf-mould, and sand. In potting, the tuber should be covered with about 1 inch of soil. Very little water must be given till they start into growth.—H. P.

Zenobia speciosa pulverulenta.—As far as I am aware the genus *Zenobia* consists of only a single species—*Z. speciosa*—but the great beauty of this solitary representative, which is even more pronounced in the case of its variety *pulverulenta*, compensates for lack of numbers. It is by some authorities included in the genus *Andromeda*, the specific names of *cassinefolia* and *speciosa* having been at different times applied to it. In its native districts (the Southern United States) this *Zenobia* is said to be principally found in boggy spots, but under cultivation in this country it will thrive under much the same conditions as the *Azalea*s and *Rhododendron*s so generally met with. The *Zenobia* forms a much branched bush, clothed with neat leaves, and the arching character of its shoots serves to show off the flowers to the best advantage. They are in colour white, of an open, bell shape, and of a thick, wax-like texture. Hanging as they do for some distance along the undersides of the shoots, a specimen when at its best makes a good show. These remarks apply with equal force to the typical *Z. speciosa* as to the variety *pulverulenta*, whose distinguishing feature is the pretty silvery character of its leaves, on which

account it well merits cultivation from a foliage point of view alone, for the leaves glisten in the sunlight almost as if frosted. In the type the leaves are green. About midsummer this *Zenobia* is usually seen at its best, but the flowering season is spread over a considerable period, and the individual flowers, from their thick wax-like texture, last long.—T

The Valleyfield Gardens.—On the 24th ult. a number of the members of the Edinburgh Field Naturalists' and Microscopic Society paid a visit to the gardens at Valleyfield House, Ponick. They were met at the station by Mr. Alexander Cowan, who conducted them through his fine gardens, which are particularly rich in alpine plants and Ferns. The collection of alpine is one of the best private ones in the three kingdoms, and much interest was taken in them by the visitors. The extensive greenhouses were also visited, and the whole gardens were greatly appreciated by the visitors. Mr. and Mrs. Cowan entertained the company to tea on the lawn, and the members appreciated highly the kindness shown them by Mr. Cowan, who is an ardent lover of plant life.

MOSS ROSES.

THUS runs the legend—Master Elf
Grasped a sweet Rose and pricked himself!
With futile rage, provoked by pain,
He struck the offending flower again;
But lo! the dewdrops left by showers
Near drowned poor Elf among the flowers.
So back retreating from his foe,
He gazed around in irate woe;
A safer weapon he must find
For this fair enemy unkind.
Soft at his feet the green moss grew,
With both hands full he threw and threw;
Soon smothered from the mossy bed,
The sweet Rose hung her pretty head.
So swift and sure the missiles flew
That every bud was clothed anew;
And thus unto all time is seen
Fair Roses mossed in softest green.

R. THOMPSON.

A new Sophora.—About the middle of June there was in full flower at Kew a comparatively new and decidedly rare species of *Sophora*, viz., *S. vicifolia*. Mention of the genus *Sophora* suggests that well-known tree *S. japonica*, but the new-comer differs in general appearance so widely therefrom that it would scarcely be recognised as a member of the same genus. It is in habit essentially a shrub, forming as it does a much-branched specimen that flowers freely when not more than 3 feet to 4 feet in height. The leaves, with which the slender shoots are freely furnished, are pinnate, from 2 inches to 3 inches in length, and composed of eight to ten pairs of leaflets. The flowers, disposed in small, terminal racemes, are Pea-shaped, a little over half an inch in length, and white, suffused more or less with blue or lavender-blue. With regard to the depth of colouring there appears to be a certain amount of individual variation. It is a native of some parts of China, and in the province of Yunnan is said to be extremely plentiful in some districts, where large stretches of almost barren soil are covered with it after the fashion of our native *Furze* in parts of this country. It has been noted by several of the recent travellers in that region, notably, Dr. Henry and Messrs. Veitch's collector, Mr. E. H. Wilson. The last-named gentleman thus alludes to it in the pages of a contemporary: "*Sophora vicifolia* is very fine in the glens and gorge. In March and April it is covered with masses of bluish white flowers. This ought to make a very acceptable plant in gardens, where it proves hardy. This plant has a very wide distribution. It is common in Yunnan and in the warm valleys of rivers bordering Tibet. The Iohang plant is much less spiny than that of Yunnan and West Szechuan. Possibly the latter is really the Indian *S. moerocroftianum*." Concerning its hardiness in this country,

the Kew plants do not appear to have suffered, but then it must be borne in mind that the last few winters have been very mild ones. A perusal of the different "Kew Hand Lists" will serve to show that the genus *Sophora* is a more extensive one than is generally supposed, as, in addition to those above named, the following species are all mentioned therein: *Sophora chrysophylla*, Sandwich Isles; *S. Korolkowi*, China; *S. macrocarpa*, Chili, also known as *Edwardia chilensis*; *S. pachycarpa*, Central China; *S. secundiflora*, Mexico; *S. tetraptera*, New Zealand, known also as *Edwardia grandiflora*; and *S. violacea*, Ceylon and China. In addition to these, two species are actually included in the "List of Herbaceous Plants," viz., *S. alopecuroides*, Asia Minor; and *S. flavescens*, Siberia.—H. P.

Philageria Veitchii.—This remarkable and rare hybrid was recently in flower in the cool fernery at Kew. As indicated by the specific name, it is of Veitchian origin, and was obtained by fertilising a flower of *Lupageria rosea* with the pollen of the nearly-allied *Philexia buxifolia*, which, instead of the climbing habit of the *Lupageria*, forms a dense tufted mass. The hybrid shows a marked blending of the main characteristics of its parents, the flexuose growth being much less vigorous than the *Lupageria*, while the leaves and flowers are about midway between the two. The colour of the drooping blossoms is deep red. This *Philageria* is by no means a novelty, for it flowered as long ago as 1872, and was distributed by Messrs. Veitch in 1879. Strange to say, the price at which it was sent out, viz., half a guinea, has been retained without change to the present day. Like its parents, the *Philageria* does best in a fairly moist peaty soil, which, however, must be well drained. Atmospheric moisture, too, is essential, while fire-heat, except for the exclusion of frost, is not needed.—T.

THE EDITOR'S TABLE.

CALOCHORTI FROM COLCHESTER.

Messrs. R. Wallace and Co., Kilnfield Gardens, Colchester, send a gathering of flowers of *Calochortus* (*Mariposa Lily*) in many beautiful forms. Messrs. Wallace write: "The *Calochorti* are now at their best, and a large planting in our serpentine nursery is worth going a long journey to see. They have had no protection whatever this season, and are growing as freely as *Narcissi*." Among those sent were some lovely forms of *C. venustus*, of which *venustus citrinus*, rich citron yellow colour, was, perhaps, the most beautiful. Several forms of *Eldorado*, notably *Eldorado pictus*, were very fine. The markings of the *Mariposa Lilies* are extremely beautiful; they are so intricate and the shades of colour so numerous as to make it almost impossible to define them.

REHMANNIA ANGULATA.

Miss King, Newark Park, Wotton-under-Edge, Gloucester, sends splendid flowers of *Rehmannia angulata*, with the following instructive note: "I think it may interest readers of THE GARDEN to know that the flowers are from plants that have had no protection through a winter on the Cotswold Hills, 750 feet above sea-level, in rather a stiff soil. They are now a very showy bed. They were last year's seedlings, and flowered freely until December."

CAMPANULA G. F. WILSON AND C. PULLOIDES.

Mr. Fitzherbert sends from Kingswear, South Devon, flowers of two *Campanulas*, viz., *C. G. F. Wilson* and *C. pulloides*. The last was raised by Mr. Archer-Hind, and the flowers are larger and considerably deeper in colour than *G. F. Wilson*. Mr. Fitzherbert says: "The two clumps are growing side by side, and the superiority of *C. pulloides* is at once apparent."

NOTABLE GARDENS.

SWANMORE PARK.

SWANMORE PARK, the country home of Mr. W. H. Myers, M.P., is pleasantly situated in one of the most delightful parts of Hampshire. The house was built nearly thirty years ago, and is now beautifully covered with many choice creepers. Far away on the southern side of the house the waters of the Solent are plainly visible, and in another direction lies the historic town of Winchester, which Mr. Myers has for the past nine years represented in Parliament.

Though there are many large gardens in the country, I doubt if there are any more full of interest than that at Swanmore Park.

For many years Mr. Molyneux was the head gardener, but he now fills another important position on the estate, and the gardens have for the past three years been managed by Mr. G. Ellwood. The pleasure grounds are extensive and well laid out, and contain some fine specimen trees and shrubs. Among the former I noticed a very fine Tulip tree, (*Liriodendron tulipifera*), *Magnolia conspicua*, a fine standard *Wistaria sinensis*, *Laburnum Adamii*, Scarlet Oak, Medlar, Evergreen Oak, Mulberry, one of the best *Exochorda grandiflora* I have seen, *Picea pinsapo*, and others. Many flowering and foliage shrubs have been added during recent years. *Veronicas* of sorts flourish luxuriantly, *Hydrangeas*, *Prunuses*, *Caryopteris*, *Buddleias*, *Benthamia fragifera*, *Olearia stellata*, *O. macrodonta*, *Hamamelis*, *Skimmias*, *Stephanandras*, *Cotoneasters*, *Cercidiphyllum*, *Rhamnus alaternus variegata*, a good plant, Japanese *Acers* of sorts, and *Cornus Mas tricolor* are among many I noticed doing remarkably well. I also observed a grand mass of Golden Elder edged with Copper Nut, which must have a very telling and pleasing effect during summer and autumn.

The wild, or bulb garden, which covers a big area, impressed me as one of the best of the kind I have seen, partly owing to its effective planting and the suitable soil and situation.

THE ROCK AND WATER GARDEN.—Though not extensive, this is well constructed, and was made between twenty and thirty years ago by Messrs. Pulham and Sons of Broxbourne. It is well protected from cold winds, and contains many of the choicest Alpines and other suitable plants. A grand collection of *Aubrietias* were most effective at the time of my visit, among the best being *Hendersoni*, *Dr. Mules*, *Moerheimi*, *Bridesmaid*, *græca*, and *purpurea*. *Helianthemum roseum*, with silvery leaves and pink flowers, was very pleasing, so also were fine masses of *Iberis*, *Adonis vernalis*, *Phlox alpina*, *Tulipa Greigii*, *saxatilis* and *pulchellum*, *Dianthus deltoides*, *Tiarella cordifolia*, *Fritillarias*, *Muscari*, and *Anemones*, especially *King of Scarlets*. Groups of *Epimediums* were very noticeable, *Cyclamen* in variety were growing in large masses, also several of the better forms of *Galanthus*, *Primulas*, *Ourisia coccinea*, *Thalictrum appendiculatum*, and *adiantifolium*, the latter being especially good in a mass. In the water garden the Bamboos are well placed and illustrate the value of these plants. In the water, pockets have been built in which aquatics are growing, and in the boggy places *Iris Kämpferi* in various

colours make noteworthy groups. Near by the rock garden, and protected by a clipped hedge of Yew, is the *Pæony* garden, now quite an uncommon feature. It contains many of the best herbaceous varieties planted in small beds with grass paths between. Close to is another square garden surrounded with hedges of clipped Laurel and Holly, and containing a large collection of the best *Michaelmas Daisies*.

ROSES.—These are planted extensively; the best kinds, both decorative and show varieties, find a home at Swanmore. Mr. Myers is a great Rose enthusiast. Those known as garden varieties are splendidly cultivated. A number are planted on the pergolas, some on pillars, and many are allowed to assume a natural habit. A new Rose garden, of octagonal shape, was made some four years ago, which contains twelve large beds, some holding no less than 500 plants each; these are planted in pairs of one variety, the following being used: *Caroline Testout*, *Papa Gontier*, *Paul's Cheshunt Scarlet*, *Gustave Regis*, *Grüss an Teplitz*, and *Kaiserin Augusta Victoria*. They are well protected by an *Arbor Vitæ* hedge about 4 feet high. An older Rose garden is composed of all mixed beds, and wonderfully well they look. Many of the best single China, Moss, *Polyantha*, *Tea*, and Hybrid Perpetual varieties are arranged. Though these have been planted a good many years, owing to close attention and annual renovation they are in good condition. The pergolas are a notable feature at Swanmore. I made note of the best plants used, and among them are *Actinidia arguta*, such Vines as *V. dissecta*, *V. Thunbergii*, *V. Coignetix*, *V. purpurea*, *Akebia quinata*, *Wistaria sinensis*, *Polygonum baldschuanicum*, *Aristolochia Sipho*, *Clematis* in variety, *Roses Claire Jacquier*, *Dorothy Perkins*, *Electra*, *Belle Vichyaise*, *Queen Alexandra*, &c. Of the

HERBACEOUS PLANTS it may be said that there are few places where they are better or more extensively grown, and the borders surround three sides of the kitchen garden. They are from 10 feet to 12 feet wide, and are planted in masses of a sort, thus producing a fine effect. These were already assuming a bright and interesting appearance. *Anemone fulgens*, *Fritillarias*, *Doronicum*, *Corydalis*, and *Orobanch* were already in bloom. I noticed large clusters of *Solidago Shortii*, *Anthericum*, *Oenotheras*, *Achilleas*, many varieties of *Campanulas*, *Potentillas*, *Rudbeckias*, *Gillenia trifoliata*, many *Heleniums*, the best varieties of *Chrysanthemum*, *Thermopsis fabacea*, a grand plant, *Polygonums*, and a host of other interesting subjects too numerous to enumerate.

THE KITCHEN AND FRUIT GARDEN.—A good sized walled-in piece of ground and additional plots near by are splendidly cultivated. Mr. Ellwood is one of those who believe in deep trenching, and speaking from results at the various horticultural exhibitions, where during the past two years he has been a most successful exhibitor of vegetables, he is unquestionably following the right course. Fine breadths of well-grown Broccoli and Cabbage as well as other seasonable vegetables were noticed. The walls were well clothed with excellently trained fruit trees. At one entrance I noticed an especially fine plant of *Akebia quinata*, which I was told rarely fails to flower. Nearly every variety of Apple of any worth both old and new are tried here, and as is

generally known Mr. Molyneux planted and still has under his charge outside the garden many acres of bush trees.

THE GLASS HOUSES.—These were built about the same time as the mansion, and are in a good state of preservation. Most of the vines are still fruiting well, which won for Mr. Molyneux so many prizes twenty or more years ago. The early house contained Hamburgs and Madresfield Court, the second one being planted entirely with ruscats twenty-six years ago, and a later house contained *Lady Downe's*, *Mrs. Pince*, *Alicante*, *Gros Maroc*, and *Alnwick's Seedling*. The centre is a show house, and contained many seasonable plants in flower. I noticed very fine plants of *Begonia Glorie de Sceaux* and *B. manicata*, the latter an old but deserving plant when grown as seen here. In the stove were *Eucharis*, *Crotons*, *Anthuriums*, and *Dracænas*, and on the roof *Stephanotis floribunda*. In the Peach house were *Nectarine Pit-maston*, *Duchess* and *Pineapple*, and *Barrington*, *Noblesse*, and *Gros Mignonne* Peaches. In the greenhouse a grand old plant of *Rose Lamarque* was coming into flower. The *Carnation* house, a span roof, contained a fine lot of plants, many of the newer and better varieties of the *Malmaison* type being grown. I also noticed a fine plant of *Rose Fortune's Yellow*, which promised to outlive those at Lockinge Park, Berkshire. Cucumbers, Melons, and Strawberries were bearing large crops. *Chrysanthemums* are still extensively grown, but more for decorative than exhibition flowers. The only greenhouse which existed some thirty years ago is still retained. B

CHRYSANTHEMUMS.

EARLY-FLOWERING CHRYSANTHEMUMS.

SEASONABLE HINTS.

THE early-flowering Chrysanthemums that were planted out in their flowering quarters during May, as so frequently advocated in these columns, are now doing exceedingly well, and the only thing that gives the grower concern at this period is to keep the plants growing steadily on. It is astonishing what may be accomplished with these plants by frequent hoeing of the soil.

It is customary in our case to hoe between the plants at least once a week, and, in so doing, growth of a sturdy, bushy, and short-jointed character invariably results.

Hoeing serves the double purpose of encouraging healthy growth, and, at the same time, keeps the ground free from weeds; by these means, too, the flowering quarters present a tidy appearance. Already most of the plants have made beautiful branching growths, and these quite naturally.

We have no sympathy with those who advocate pinching or stopping the early-flowering Chrysanthemums. They never do better than when left to develop their growths naturally, and any interference with the natural sequence of events in their life-history usually ends unsatisfactorily.

At different periods we have tried the effect of stopping the plants, as advocated by some writers, but the result has been so unsatisfactory that the perfectly natural

development of these naturally bushy plants has been repeatedly demonstrated by its superiority over any other method of culture.

When a plant is stopped, lateral growths develop immediately subsequent thereto, and for a time the vigorous character of these shoots gives one reason to be pleased. In the course of time, however, as the branches assume larger proportions and the strain upon the union with the main stem becomes more severe, the grower then has cause for concern.

The union of the lateral growths that have been produced as a result of stopping the plants is so entirely different to those produced in a natural manner that, when boisterous winds occur in early August, the strain upon the former causes many of them to snap out, thereby losing a large proportion of the plant's growth and spoiling the even contour of the plant, to say nothing of the loss of many valuable buds and blossoms ultimately. Plants that have been stopped or pinched need to be more carefully staked and tied than those developed in a natural manner. The ties and the growths must be made very secure, if one's plants are to be protected against strong winds and boisterous weather, as the autumn season comes along. In all cases staking and tying should be done in good time, and if the plants have not already received a stake for their support this should be done at once. Use stakes of a height to meet the needs of each plant, and thus avoid the unsightly appearance of having stakes that are longer than the plants really require. With stout raffia or tarred twine securely tie the plant to the stake at its base, as this is where the strain is first of all felt. Then make another tie immediately below where the plants begin to branch out into lateral growths, thus leaving the head of the bushy specimen free.

As these lateral growths begin to attain a length where they will need the control and support of stakes and ties, begin to secure them to the central stake, or others inserted between the plants for their support. First of all make the tie secure to the stake, and then, within a loop-like tie, secure the shoot it is desired to control. In this way plants of a bushy character may present an even contour, and their well-being be thereby fully considered. Very soon buds will be developing, the earliest sorts, of course, being the first to show these. Do not make the mistake of severely disbudding, so commonly practised on exhibition sorts and so frequently advocated by those accustomed to grow the same. The early-flowering varieties never look better than when left to develop growths and buds in a perfectly natural manner, and to this end only in the case of the more crowded buds should any of them be removed.

The more recent introductions of the early Chrysanthemums have flowers on long foot-stalks, so that the need of disbudding is scarcely felt, but in the case of some of the older varieties terminal buds form in a dense cluster and seldom make the longer foot-stalks that one desires. In such cases, therefore, remove the more crowded buds among them, but not unduly so. The only reason why the buds should be removed is when they interfere with the development of other buds in close proximity thereto.

Let these simple rules be followed, and there is no reason why plants bearing between 100 and 200 flowers should not be at their

best in the following season of September and October.

It will be an advantage to water the plants in dry weather when the buds are formed, but not until then. An earlier application of liquid manure invariably promotes a too coarse growth; therefore do not water with liquid manures until the buds are well set.

Insect pests at this season seldom give one much trouble. Occasionally green fly or black fly may be noticeable on the plant, but a timely dusting with tobacco powder will quickly eradicate these pests and keep the plants clean. Occasionally caterpillars are found upon the plants, and unless speedily despatched will soon disfigure the same. When once they are seen a search should be made for them, and, until the depredators

drapery for an archway through a trellis fence. The plant has been in its present site for two years only, and has made rapid growth. Its wants are simple enough, plenty of water in the growing season, and an occasional overhauling and tying up of the longer shoots. The white flower-heads are extremely graceful and pretty, and last a considerable time. This species seems to be the least aggressive of the numerous garden Polygonums, growing only where it is wanted instead of sending out vigorous and objectionable underground suckers in all directions from the main root. S. G. R.

A SELF-PLANTED CORNER.

It has been an annual puzzle what to plant in a certain conspicuous and extremely dry corner of my shrubbery, partially under the shade and wholly under the evil influence of a Fir tree by



TREE LUPIN SNOW QUEEN.

have been discovered, the grower should not rest content. D. B. CRANE.

NOTES ON HARDY PLANTS.

TREE LUPIN SNOW QUEEN.

ENCLOSE a photograph of a white Tree Lupin (Snow Queen), at present in bloom in the garden of Dr. Macbatt, Morelands, Duns, N.B. It is about two years old, and is, I think, about 4 feet high. The Lupin is a perfect shape all round, is not supported or pegged down in any way, and it is a mass of bloom all over. My photograph does not do it justice, but it gives a fair idea of this perfect specimen of the Snow Queen Tree Lupin. Duns, N.B. AMY N. CAMERON.

POLYGONUM BALDSCHUANICUM ON TRELLIS ARCH.

A VERY pretty effect results from the employment of Polygonum baldschuanicum as a

the side of the entrance drive. This year the question was happily settled for me by no less a personage than Dame Nature herself, and I send a photograph of the result, which has been much admired. Briefly described the combination consists of a mixture of Our Lady's Milk Thistle (*Silybum marianum*) with its handsome white-blotched leaves and purple flower-heads, a good yellow long-spurred *Aquilegia* and an inferior purple one, Foxgloves, and *Reseda alba*. All these are self-sown, and blending gracefully together compose a most delightful picture. S. G. R.

GYPSOPHILA REPENS GRANDIFLORA ROSEA.

QUITE by chance I discovered that not in one of the catalogues of half-a-dozen of the most noted Alpine nurseries in England which I have by me, nor in those of three well known Continental firms either, is the above-named variety offered. They all only mention the type *G. repens*, with indifferent remarks, such as "covered with small white flowers," or "an Alpine species with white flowers," &c. Yet it is hard to believe that a gem of such exceptional beauty as the variety *rosea* should either

not be better known, or not be taken more notice of, when slight divergences scarcely deserving of notice are often puff'd up to a degree only calculated to entail disappointment. With the variety under notice no fear of this need be entertained. To my own fancy the sweet beauty of a large "curtain" of this plant, draping with its mellow tint a sloping bank or falling over the edge of some precipitous rock, would be hard to beat by any other sight in the rock garden. I can safely say no other plant in my possession inspires me with greater impatience and longing for its flowering period to approach, this period, moreover, being a fairly protracted one, and never failing to bring forth the welcome sheet of lovely soft tinted hairy-looking little florets in their thousands and thousands year after year. I have it covering the top of a large boulder of rock, while lower down, overhanging a smaller piece of rock, is the type *G. repens* with smaller white flowers. In another place *G. repens rosea* hangs down from a higher structure encroaching already on *Campanula turbinata* in the crevice below it. At the bottom is *Aleine liniflora*, draping the slope with a sheet of white. I may mention that the rockwork having been constructed only recently it is not yet fully furnished.

E HEINRICH.

STOVE & GREENHOUSE.

MALMAISON CARNATIONS.

THE original Malmaison, which I first knew upwards of forty years ago, still remains one of the best we have, yet it is remarkable that many fail to grow the Malmaisons successfully; too much coddling is generally the cause.

They certainly require careful treatment and a little different management to the ordinary sorts grown in pots. If the plants have not been hurried on they should now be flowering, and to ensure the blooms lasting as long as possible the plants should be kept in a cool house, giving plenty of air night and day, and a slight shading when the sun is bright, but heavy shading will weaken the growth which is to follow for another year. It is hardly necessary to say that when large flowers are required all the side buds should be taken off as they appear.

Watering is an essential point, while over watering may prove fatal. To let the plants get too dry, any time after the buds begin to form, will check the development of the flowers. Weak liquid manure may be used frequently—that made from cow manure and soot being the best. It should be made some time before it is required for use, and allowed to settle down, so that it can be used in quite a clear state. The plants cannot be syringed while flowering, but the floor, walls, and benches may be kept well moistened. Red spider is sometimes very troublesome, therefore every precaution should be taken to keep it in check. Sulphur and lime-dust may be freely used. If the plants are dusted over periodically it will keep off mildew and "spot," and also check the spider.

The same plants may be grown on for several years, but they require careful attention. Starting from the time they have done flowering, they should first have the flower-stems cut away. These should be cut off as close above a shoot as possible, as when left rather too long they are liable to die back below the shoots, and the plants will gradually be lost. All old leaves should be removed. If the side shoots are well started it will be safer to give each a stick, as they split off easily. After being properly cleaned they will be ready for repotting. Some of the old soil may be removed, and perhaps some plants may go back into the same sized pots or even a smaller size. Before disturbing them, any that are dry should be watered, and allowed to stand for a time. Much depends upon the soil being in a proper state in regard to moisture.

The compost for potting should consist of soft fibrous loam, some leaf-mould (which should be thoroughly cleansed from worms, &c.), and a little well-rotted stable manure may be added, also some bone-meal (not dissolved bones). Some growers use peat, and if the loam is heavy it is an advantage, but with good loam I should prefer to leave it out. After repotting they may be placed in a cold pit, where they can be shaded and kept moderately close for a few days, but they should never be shut up quite close (for this, I may point out, will almost invariably bring about mildew and spot). After they are re-established, the lights may be left off night and day, unless it is in very bright weather, when the lights may be put on and tilted up, and a slight shade put over them, but this should never be left on after about 3 p.m. In case of heavy rains, the lights may also be put on. In very dry weather syringing in the evening will be beneficial. The plants should never be crowded together. Some growers keep them in the house all through the year, but I have found they are better out of doors, where they get the benefit of the night dews. They should, however, be taken under glass early in autumn, and as soon as we get cold damp weather a little artificial heat may be given. Air and light, with a



LILIIUM HARRISII WITH TEN FLOWERS ON A STEM.

temperature of about 50° to 55° Fahr., will ensure healthy growth.

Carnations are often ruined through being kept too close and warm in winter. This particularly applies to the Malmaisons. They cannot be forced, but in bright sunny weather a little extra heat, with plenty of air, may help them on. Although the same plants will do service for several years, some young stock should be propagated annually. I have found that where they can be bedded out in the open ground the strongest plants are secured. In the Channel Islands I believe they do well in the open through the winter, but I have not known them to succeed except under cover in England.

I have propagated from cuttings taken in August, but layering is the safest method, and stronger plants are secured. The layering may be done soon after the plants have finished flowering. It may be more convenient to do this in a frame. A spent hot-bed, with a good surfacing of sandy loam, will suit them, or I have rooted them successfully in pots, and this is a convenient method. After the plants have been prepared so as to leave a portion of clean stem a cut is made upwards from the under side, the cut may extend about half an inch or more, but

must go through one joint, and rather more than halfway through the stem.

It is difficult to bend the shoots down much, as they split off from the stem easily. If turned out of their pots and put into a larger size, placing them at the bottom, so that the pot can be filled up and bury the stems above the cuts, the layers may be pressed forward so as to leave the cut open. A peg may be used for each, but this is hardly necessary if the stems can be kept well below the surface without. With large plants it is easier to layer them in the ground, and the plants can be laid on their sides to bring the shoots down. When this is done a peg is necessary for each layer (or shoot). The time of layering depends on the growth of the plants, but the earlier it can be done the better, and it should never be left later than the middle of August. It is advisable to take the layers off and pot them as soon as they are well rooted. When left too long, the roots get entangled and it is difficult to separate each layer without losing a lot of roots. When first potted they may have a little shade, but never over shade or shut them up close.

VARIETIES.—We now have quite a number included in this section of Carnations; but the old variety, which is of a delicate blush pink, still remains one of the most desirable. There are sports of deeper shades which have not been renamed, except as Pink Malmaison and Rose Malmaison. Princess of Wales is one of the best of the more distinct varieties; Princess May is also a fine variety, of a deep rose-pink shade; Nell Gwynne is the best white; The Churchwarden is a good crimson; Prime Minister scarlet, and there are others quite as good; but some that are catalogued with the Malmaisons are of hybrid origin, and hardly belong to the true Malmaison class.

A. HEMSLEY.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

ROSES WITH GREEN CENTRES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—That the green centres common in certain Roses come from some check in the bloom formation is obvious, but this gives no explanation why certain Roses, and those often of the strongest, are so liable. Most liable of all is Mme. Isaac Pereire; and I think it will be agreed that next comes Mrs. Paul, and then probably Souvenir de la Malmaison. Now, as all three of these are Bourbons, the explanation must be connected with this fact, and probably, therefore, with the singular property of Bourbons to flower their best only in the second blooming. I always advise taking off most—or even all—the buds of Mme. Isaac Pereire and Mrs. Paul in May. They will more than compensate for it in August. A further confirmation of this may be found in the addition to this vice of Eclair, which is one of the very grandest of autumn bloomers. I have never seen Eclair's parentage stated, but I strongly suspect an infusion of Bourbon blood.

G. E. JEANS.

Shorwell Vicarage, Isle of Wight.

LILIIUM HARRISII.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I send you a photograph of *Lilium Harrisii* which is carrying ten blooms. It was grown in a 7-inch pot. I potted it on October 1 in a 5-inch pot. The soil used was good loam, leaf-mould, silver sand, a little peat, and a little burnt earth. I then plunged the pots in ashes, and, after they had made good roots and a little top growth, I took them out of the ashes and put them in a cold frame. In January I potted them into

7-inch pots, using the same compost, and then I placed them in ainery that I had just started. They were left there till they formed their buds, and afterwards they were stood in a cool greenhouse until they flowered. I had several bulbs of *Harrisi* in pots of the same size, but they only carried six or seven blooms each. I thought this one was very good, hence the reason for sending you a photograph of it. J. HUXLEY.
(Gardener to P. Williams, Esq.)
Penygarth, Brymbo, near Wrexham.

LONG-KEEPING APPLES.

[To the Editor of "THE GARDEN."]

SIR,—The statement of one of your correspondents as to the keeping quality of some English Apples is interesting, and so may be this not very unusual fact as to the keeping quality of some Canadian Apples. At the end of July last I mentioned to my gardener the fact that I had that day had my first Apple from the new fruit—Early Harvest—and that an excellent one; whereupon he informed me that he had never had a better Apple pudding than the one he had that day eaten from the Apples of the year before. No special care was taken with them; they were merely piled in heaps on wooden benches in a cellar with a northern exposure only. The season has a good deal to do with it; a hard winter helps very much. This year they have not done so well, having kept well until last week only, but since July last, until last week, we have had any quantity of Apples every day in good condition. Tons rot under the trees every year, and yet there is a superabundance housed. MIDDERROW.
London, Canada, June 17, 1905.

TREES AND SHRUBS.

A BEAUTIFUL MAGNOLIA.

(*M. HYPOLEUCA*.)

IN several parts of the country this handsome *Magnolia* is flowering for the first time, and gives promise of being a valuable addition to the larger-growing section of the genus in the near future, when existing trees have attained larger dimensions. It has only been grown for twelve or fifteen years, and it is still comparatively rare. In general appearance it resembles *M. tripetala* to a certain extent, but the flower is quite different. The leaves are large and handsome, often 1 foot to 15 inches in length, and 6 inches to 8 inches in width. The petioles are rarely more than 2 inches long, and retain the scars made by the two large and curious stipules, which are divided at the extremities and united in the middle, and which fall at a very early stage, often before the leaves are fully developed. When young the leaves are densely covered on the under surface with a fine, soft pubescence; on older foliage, however, the pubescence is less dense. When young the leaves have a bronzy tinge, and when older they are deep green above, glaucous beneath, and previous to falling turn to a pretty shade of yellow. The flowers are white, with three greenish brown sepals. The petals are eight or nine in number, the inner ones being smaller than the outer, the margins of all having occasionally a faint purplish tinge. The stamens are attractive, the filaments are bright red, the anthers white. The styles are purplish in colour, and are well above the stamens. The flowers are at their best when about three parts open, but they do not keep long in first-rate

condition. At this stage they are somewhat cup-shaped, and 5 inches or 6 inches across. As they age they open out wide, become ragged, and turn to a reddish brown colour. When at their best they are very fragrant, the perfume being noticeable from a considerable distance. The species is a native of Japan, and is there said to attain a large size. At Kew a tree growing in the *Azalea* garden has borne a number of flowers during June. W. D.

THE ROSE GARDEN.

ROSE TEA RAMBLER.

AMONG the many Roses in flower on the pergola at Kew at the present time this is one of the prettiest. A seedling from *Crimson Rambler* and a *Tea* variety, the name suits it admirably. It has the foliage of a *Tea Rose*, and a vigorous rambling habit, making growths 10 feet or 12 feet in length. The foliage is practically evergreen, and the flowering period extends over a long season. The flowers are produced in profusion, often from ten to twenty in a bunch. The small blooms are coppery pink when opening, changing to salmon pink, quite a distinct colour amongst the multiflora hybrids, and they are sweetly scented. An excellent variety for arches and pergolas, it should also prove useful for running over old tree stumps and rooteries. Grown as a standard, it is one of the best weeping Roses. It was raised by Messrs. Paul and Son of Cheshunt. The Rose dell at Kew is one of the most beautiful features of the Royal Gardens in the summer months. The plants have been chosen for their freedom of flowering. A. O.

TWO BEAUTIFUL BRIAR ROSES.

Of all the single Roses now grown, and they are very numerous, there are few that give greater pleasure than *Lady Penzance* and *Janet's Pride*. The former was certainly the most precious of the sixteen varieties sent out by the late Lord Penzance, and it seems a strange fact that the Rose world had to wait so many years for hybrids from that finely-coloured and oldest of Roses the *Austrian Copper*, or *Rosa punicea*. Lord Penzance, with marvellous patience, produced the variety *Lady Penzance* by crossing the *Rosa canina* of our hedges with the *Austrian Copper*.

This latter will not succeed everywhere, but *Lady Penzance* may be cultivated as easily as the common *Briar*. The Sweet *Briar* fragrance remains to add to its charms. This Rose would make a pretty object budded on a standard *Briar*, and it is splendid on arch or pillar, or covering the ground if pruned hard back or pegged.



CLIMBING ROSE TEA RAMBLER IN THE ROYAL GARDENS, KEW.

Janet's Pride is a rich rosy pink, with white splashes and stripes. The deeper colour, however, prevails near the edges of the petals. There is not a powerful Sweet Briar fragrance, yet one can detect the scent in early morning or evening, or after a shower. P.

A NEW RAMBLING ROSE.

WE are enclosing a photograph we have just had taken of our new hybrid climber Waltham Bride. This is an early-flowering, pure white variety, and the plants have just finished blooming. The plants in the photograph are just one of the ordinary nursery rows, the plants being roughly supported from between with sticks to keep them in position.

Waltham Cross.

W. PAUL AND SON.

NEW AND RARE PLANTS.

A NEW DAY LILY.

HEMEROCALLIS CORONA, the new hybrid Day Lily shown in the accompanying illustration, is one of several new ones raised by Mr. G. Yeld, Clifton Cottage, York. It was shown at a recent meeting of the Royal Horticultural Society, and received an award of merit from the floral committee. It is said to be the result of a cross between *H. flava* and *H. aurantiaca* major. The colour is a good deal similar to that of the latter, but the flowers are not so large. It is evidently very free flowering, to judge from the flowering sprays exhibited. Mr. G. Yeld has raised several beautiful Day Lilies and Irises. Some of the latter were exhibited before the Royal Horticultural Society, and one obtained an award of merit.

THE FLOWER GARDEN.

THE CARNATION IN THE GARDEN.

IF the Rose holds the first place in the garden, the Carnation surely must come next in importance, though the Lily may surpass it in grace, and the Carnation has this merit, that in gardens near towns or in smoky districts it will thrive quite as happily as in pure air, while the Rose demands both shelter and the country.

In the country, however, it must be confessed that hares and rabbits work havoc among Carnations, and make it impossible to grow them in many gardens unless carefully wired in from all attacks of their enemies.

For this reason, and for others which I shall specify, I want to suggest that the Continental plan of growing Carnations in boxes or pots on balconies, house-tops, or any such place of vantage is worth considering. In Spain Carnations are grown almost entirely in this way, and flowers hang down naturally, so that the guard petals are then able to fulfil their function and shelter the centre of the flower from sun and rain, thereby causing it to fill up perfectly. I fancy that some of our exhibitors would find the quality of their blooms enhanced were they allowed to hang down in this way, and no one who has visited Spain in late spring will deny the beauty of this mode of growth. Carnations are found growing wild on crags and on ruined walls, so it is evident they do not prefer a low and flat situation, though at first they may make very strong growths in such a position when the soil is rich. Autumn dews and winter rains will cause these

vigorous and sappy shoots to canker and rot off at the base by another spring, thus disappointing the gardener who looked for success in the summer.

The real difficulty in Carnation culture is the short duration of the plants. What is uglier than a nurseryman's bed of rooted layers planted in rows in a bed, each with its flower stem stiffly tied up, and the buds probably severely disbudded, and this more or less must be true of all freshly-planted Carnations. The object, then, of picturesque Carnation growing is to keep the old plants in health for two or three years, when a luxuriant mass of growth and flower is produced. When this is achieved the beauty of the Carnation is undeniable.

It is certain that a Carnation plant will last longer in health when its collar is screened from damp by stones, or by any such protection as is afforded by steeply sloping ground. Extremes of heat are quite as injurious as winter cold, for the Carnation prefers an equable climate that is neither hot nor cold, such as is found over the greater part of our islands.

So, then, if the Carnation is to last long in the garden you love, plant it on banks with plenty of big stones about to screen the collars of the plants from moisture and cold, and rendering the temperature equable. Let the aspect be east or west rather than south, and let the wind blow freely over it, for no plant enjoys wind more than the Carnation. Most gardens have a wind-blown corner. Why not plant the Carnations there? When you can, let the flowers and foliage hang down naturally, and in the second summer a tangled mass of flower and foliage will result quite unlike the conventional Carnation bed, and infinitely more enduring. The so-called Tree Carnation is the most useful for autumn flower-beds, as the handsome but more formal and summer-flowering florists Carnation does not continue more than a month or six weeks in flower, and, moreover, does not strike so readily from cuttings as the tree varieties do.

By the sea and on sloping banks the spicy Cloves endure for years, and need only an occasional layering, so where there is the opportunity of making a dry wall with plenty of earth behind, moist and yet well drained, there is the place for a long-lived display of Carnations, which will give the amateur several years of pleasure before it needs thorough renewal or overhauling.

No one regrets more than I do the impossibility of the culture of Malmaison Carnations in the open garden. So fragrant, so beautiful, so large and handsome, it seems quite a mistake that they will not exist save under very special conditions. Will the gardener of the future provide us with a race of hardy Malmaisons? If so, I think he will gain a good reward in thanks and in gold. Carnations are particularly acceptable in the old-fashioned kitchen garden herbaceous border;



ROSE WALTHAM BRIDE AT WALTHAM CROSS.

their beauty is not suited to the formal garden, and when planted formally should only be used for cut bloom and for propagation, two things that are indispensable in the modern garden.

Moderate disbudding I would always allow. Some varieties indeed require it; the flower-buds are so congested that all cannot expand freely. It is, however, a matter of individual taste, and should be left an open question.

How best to determine what Carnations shall be grown is another matter that needs judgment. The varieties that grow well on the strong and cold soils of the northern portion of England do not like the hot and light soils of the south, while some of the yellows and soft reds or pinks do best in the last mentioned. The old and fragrant Clove is apt to die out in the south in hot seasons, while in the north a wet year (like 1903) causes heavy losses the following winter. There are a few extra enduring named varieties

I will mention, such as the well-known Raby Pink, that is well to the fore after more than threescore year's wear and tear, but its flower is small as well as deeply fringed, a fault in some folks' opinion, though not in mine.

Of whites I still put Trojan as the most reliable of border Carnations, fine in every way save its lack of scent. Of pure scarlets there is a greater choice; indeed, this colour is always of hardier growth than any other that I know, and it is a matter of opinion whether the very smooth edged varieties are as effective as the rougher edged sorts. Of deep crimsons I have found Mephisto the most enduring and hardy, and of pure yellows there is nothing to touch Miss Audrey Campbell as far as I know; and of rose-reds, no variety is more enduring and handsomer than Belladonna. Of orange shades Midas is still the finest; and of lighter buffs, Mrs. Reynolds Hole is yet worth a place, though not good on strong soils.

The Picotees, especially the modern ones raised by Mr. Martin Smith, are very vigorous and hardy, but after a few years they are apt to lose vigour when grown in the open border, while those grown in pots retain their health to a far greater degree, which proves that much water in winter is death, more or less lingering, to the Carnation.

The Tree or Perpetual Carnation is not enough planted for summer use in my judgment. It is far more amenable for bedding purposes, and can equally be propagated for summer and autumn flowering as for winter culture under glass. With an edging of Phlox

Drummondii pegged down outside the Carnations an uncommonly bright display can be achieved, and the long sprays of bloom are lasting for cut flower purposes. Perhaps some one has already tried some of the strong-growing American varieties in this

way. The Carnation is always so welcome as withstanding rain when half open, that it must prove very useful in stormy autumn weather until winter is upon us and the hardy Chrysanthemum is ready to supply the demand for cut flowers.

E. H. WOODALL.



HEMEROCALLIS CORONA. (New hybrid shown by Mr. G. Yeld, Clifton Cottage, York.)

GARDENING FOR BEGINNERS.

SIMPLE HINTS.

EASILY-GROWN LILIES.—The accompanying illustration shows two of the most easily-grown Lilies in a small garden seven miles from Charing Cross. They are *Lilium umbellatum* and *L. croceum* (in front). The flowers of the former are larger than those of *L. croceum* (Orange Lily), and they are of orange red colouring. They do not last so long as those of the Orange Lily, however. The blooms of the latter are rich clear orange yellow, very freely produced, lasting well, and making a brilliant display for quite three weeks in June and July. It may be interesting to state that the bulbs which have produced these flowers were transplanted early in April last, when the growths were 6 inches or 8 inches high. The slight check seems to have done no harm at all; in fact, if anything they have flowered more freely than ever this year. These Lilies grow quite well in ordinary garden soil if it is well dug and some sand mixed in with it. It is perfectly hardy, and requires no protection in winter. It is growing in a border facing south-west. It gets the morning and early afternoon sun. It seems a pity that more people with small gardens do not grow this Lily.

Foxgloves.—The Foxgloves are such stately plants when they are well grown that it is surprising they are not more often met with in gardens, as even the common wild variety is very attractive. There is, however, a sufficient number of different colours now to enable anyone to make a good feature of them if suitable positions are selected. The white variety is, perhaps the most striking of any when it is given good soil and plenty of room. I have before me as I write a spike of flowers 3 feet high, and on two-thirds of the length are half-open or fully expanded flowers. The present is a good time to take young plants in hand for flowering next year. If they cannot be set out where they are to bloom they should be planted in good ground 15 inches apart each way and transferred to their flowering quarters about the middle of October. The shrubby border is the best place for them, as a background of shrubs enhances their stately character.—P.

Perennial Gaillardias.—Probably no other hardy flowers are so valuable for cutting as the Gaillardias, and certainly any more easily managed I do not know. For ordinary purposes I think that seedling plants are better than those obtained from cuttings. Owing to the way I treat the seedling plants I get them into bloom earlier and the flowers are much larger. I also get a more robust growth and a greater number of flowers than I obtain from cuttings, although they may be only one year old. I sow the seed of the perennial varieties some time in May, and when the seedlings are large enough I plant them out where they are to flower. In my strong soil I find that if I set out the plants 18 inches apart each way it is none too far. If they are closer together the growth gets drawn and the individual blossoms are smaller. Treated in this way and given good soil, it is surprising what a number of flowers the plants will produce and the long time they will continue blooming.—E.

Sweet Williams.—Amongst the most precious of early summer flowers is the Sweet William, but, as with most things, the self-coloured forms are by far the best, more preferable in every way than those spotted or undecided in colour. Raisers pay too much regard to size, as if a flower increased in interest and beauty according to the breadth of its petals. This is a glaring fault in

the Sweet William, as pronounced as its speckled colours laid on like bits of bad mosaic. Those varieties are best that have flowers of a good strong colour, deep crimson, perhaps, set off with a white margin, with also a white eye, or without any contrast, simply self crimson, the Sweet William in this form is a great gain. Of recent years one has seen many acquisitions to the Sweet Williams, but none too many decided self varieties or such fine things as the double crimson, which is delightful in a group.

A Beautiful Lobelia.—One of the finest dwarf blue Lobelias for the border or bed is one called Mrs. Clibran, sent out by Messrs. Clibran, Altrincham. The plant is of very compact growth, and some small ones planted a few inches apart soon grew together and formed a dense tuft, which becomes a mass of the rich blue, white-eyed flowers. This variety has been in bloom for some time past. It is undoubtedly



TWO EASILY-GROWN LILIES IN A TOWN GARDEN.
(*L. umbellatum*, orange red, and *L. croceum*, orange, in front.)

a valuable Lobelia, for it is dwarf, compact, and free, and its flowers are, perhaps, the most richly-coloured of any variety. It is a splendid plant for the small garden, and makes a brilliant bit of colour.

The Best Rose.—A correspondent writing recently in THE GARDEN mentioned Caroline Testout as his favourite Rose. None can dispute its being a very fine one, but for the beginner I really think the best Rose is Cléo. For profusion of flowering and strong growth there is no Rose to equal it in my opinion. The pale, flesh-coloured blooms are of excellent form, and are produced in bunches on strong, stout growths. When plants are two or three years old, and some of the strongest shoots have been slightly shortened and pegged down they simply bristle with buds and flowers. As an object-lesson in pegging down the shoots of Roses, and also as showing the value of Cléo for this method of culture and its astonishing profusion of flowers,

all those who have an opportunity should see a bed of this Rose near the Palm house at Kew. The long shoots of last year's growth are slightly arched, and the ends fastened down by means of pegs. The result is that almost every bud along the whole length of the shoot has burst into strong growth and is bearing a bunch of flowers.—H.

Pegging down Roses.—The good results from pegging down the shoots of Roses in spring, as then advised, may now be seen. I practise this method with any varieties, making growths strong enough for the purpose, and I obtain far more flowers than I otherwise should do. Of course, these shoots must be cut out after they have flowered, in order to make room for other shoots to flower the following year; in fact, they are pruned as climbing Roses are pruned, so far as the pegged-down shoots are concerned.—E.

A Beautiful Annual.—In how few gardens does one see *Collinsia candidissima* or *C. bicolor*, both beautiful and useful annual flowers! These are produced very freely in whorls up the stems; in fact, the latter are full of flowers when the plants are at their best. *C. candidissima* is white, and *C. bicolor* is purple and white. From seed sown some three months ago we have now a splendid group of these *Collinsias* in full flower. Close by is a mass of the white *Clarkia*, a most useful annual also. It was sown at the same time as the *Collinsias*. Anyone who wants a neat-growing annual for an edging should sow *Leptochloa aurea*. This is a neat, quite dwarf plant with pretty leaves, and bears small, round, bright yellow flowers. It lasts in beauty for a considerable time. If possible, it should be sown where it will get as much sun as possible, for the flowers close when the sun is off them.

Pink Pipings.—I have lately made a propagating frame for the cuttings of Pinks by taking a large shallow box, with one or two holes at the bottom, placing some rough turf over the bottom, then putting on this about 3 inches of very sandy light soil. I dibbled in the cuttings, making them very firm at the base, and covered the box with glass. Placed in a shady place the cuttings have every chance of rooting, just as well as though they were in a large garden frame. Those whose garden space is limited will find it quite easy to root their Pink cuttings as I have described. It is important to keep them in the shade, to keep the glass over the box, and also in the morning to remove the condensed moisture which gathers on the glass. If this is not done it will fall upon the cuttings, and may cause them to decay.

Viola Kitty Bell is the finest I have grown this year. Ever since planting in April the plants have been in flower, and for the past few weeks they have borne a profusion of blossoms. These are a very attractive pale mauve. The plants have not become at all "drawn" or "leggy," as some varieties have done, but have remained dwarf and compact. It is just the thing for a small town garden, and I am sure that no one who grows it once would wish to be without it again.—E. H.

Propagating Double Chinese Primulas.—Many fail to strike these plants from cuttings, as they are liable to damp off before rooting is completed, but if the old plants are surfaced well up the stems with a mixture of chopped moss, peat, or leaf-mould and sand, pressed firmly, and kept reasonably moist, roots will form in the top-dressing, and, when division takes place, every bit has roots and there are no failures.

A Beautiful Hardy Plant.—*Achillea mongolica* is a beautiful hardy plant for the border, and the flowers are good for cutting during the months of May and June. It has been a good deal in evidence lately for table decoration and bouquet work. It is easily propagated by division, and when fully developed grows about 18 inches high. It is not particular about soil.

Packing Flowers.—The best way to send flowers is to wet some moss and wring it out in the hand, and either tie it on to or lay it loosely but firmly among the stalks, and to envelop the whole in some large fresh leaf, like Cabbage, Rhubarb, Spinach, Lettuce, Dock, or even Ivy. If the box is larger than the space the specimens actually occupy, it is well to fold the green leaf over the flowers and to fill the rest of the space with crumpled paper of any kind, wood or paper shavings, or any such material, in order to keep the flowers quite firm, and not allow any movement whatever. It is much better to pack very tight, only short of crushing, than to leave any space which would allow them to move. It should be remembered that a postal journey is a train journey, and that the unceasing vibration means a constant grinding of any surfaces which may be in contact with each other. Only tight packing prevents injury from this cause. In all such packing exclusion of air is also of the utmost importance; therefore tins are the best kind of receptacle. There is generally a Cabbage leaf in the kitchen, and there is often only too much Ivy on the house.

Sea Starwort (Aster Tripolium).—*Aster Tripolium* has a curious habit well known to botanists, by which it appears when in flower in different positions to be two quite dissimilar plants. When growing on sea cliffs and the landward part of salt marshes the flower has the purple ray petals as well as the yellow florets of the disc. But in parts of the salt marshes nearest to the sea, where the plants are submerged by every spring tide, the flower is of the yellow disc only, and the plant, growing in dense masses, sometimes by the half acre, looks in autumn like a sheet of yellow bloom and the blossom individually like a flower of quite a different character.

Erinus alpinus in Rough Stone Steps.—Those who are in sympathy with plant-life and have some understanding of the ways and wants of flowering plants will have two questions always present in their minds. In any place of whatsoever nature that is bare they will ask themselves—What is the plant that will suit this place that will both look well and also be happy? The second question will occur when contemplating beds or boxes of seedlings, or any store of plants waiting to be put out, and it will take this form—What place have I where these will thrive and look right? An opportunity for the happy solution of the first question occurred two years ago when some rough stone steps leading to a loft above a stable, already sparsely clothed with natural mosses, seemed to invite the introduction of something a little better. A few seeds of *Erinus* were scattered in the joints, and mossy tufts grew and thrive, taking to the somewhat unpromising place with a cheerful vigour that was more than the expected reward of what was only ventured upon as a pique of experimental planting. So that one may confidently advise anyone who has a bit of moss-grown wall or steep stony bank to sow *Erinus* and leave the accommodating little alpine to do the rest. The flowers are purplish red of a harmless type, and the little flower-stems have a distinct character in their way of standing sturdily with their backs pressed against an upright stone. The whole plant has a rather fusty smell that is disagreeable to some, but that may well be forgiven in the open air.

Summer Treatment of Raspberries.—Early thinning greatly lessens the attack of the *Lampronia rubiella*, or Raspberry bud grub, that

has literally spoiled many plantations. The young canes having plenty of light are well matured at the end of the season, and not so liable to the attack of the pest as if they were half ripened, and the constant stirring of the surface soil by hoes or other implements does not give the enemy much rest, as it is exposed to changes of weather and the keen eyes of birds or poultry. Immediately the fruit is picked all the old canes are cut out and then burned, returning the ashes to the soil. It is a good plan to burn all young or old canes, weeds, &c., as the ashes are a grand fertiliser and will retain most of the constituents removed from the soil. This is much better than allowing the refuse to lie in a heap, harbouring insects and serving no useful purpose.

Apricots and Plums.—The breast wood of Apricots, Cherries, and Plums may be shortened back to four leaves, and the fruit, if too thick, should be thinned. If the spraying has been attended to there should be no insects now, and any tree which requires more nourishment may have it in the shape of a rich top-dressing or liquid manure. We are becoming alive to the fact that heavily-loaded trees require more feeding than they usually get.

Work among Wall Trees.—It is rather soon yet to begin summer pruning, better wait till the end of the month, when the young wood is getting a bit firm at the base. The surplus vigour will then have been worked off and there will not be so much soft late growth, as the fruit will take up all the flow of sap. But there is work to do in tying or nailing in the leaders and training in the young shoots of Peaches.

The Tulip Tree.—This is a beautiful lawn tree when it has attained size. The finest Tulip Tree we know of is, or rather was—for it is twenty years since we saw it—at Killerton Park, near Exeter, Sir Thomas Acland's beautiful place. There are many other beautiful trees in the grounds there, including some very fine Evergreen Oaks. All the planter can do is to get a good tree, plant it carefully, and leave it for his descendants.

GARDENING OF THE WEEK.

FLOWER GARDEN.

RHODODENDRONS AND AZALEAS are now out of bloom, and the plants will benefit by having the seed-pods removed. Where large quantities are grown and many large bushes exist, it is not always practicable for all to be attended to in this way; still, an endeavour should be made to relieve the choicest kinds and younger plants of the strain of seed-bearing. If any bushes unduly encroach on their neighbours, or on the grass or walks, the present is a favourable time to cut them in, but do not use shears. Cut offending growths well back to the old wood with a sharp knife or scateen.

LAURELS and any other shrubs that require keeping within bounds should be treated in the same way, but late-flowering *Dentzas*, *Weigelas*, *Thorns*, *Spiraeas*, &c., should have the spent flowering sprays only cut out, leaving the current season's shoots intact to provide next year's bloom. Of course, if these latter are a thicket, thin out the weakest. (I assume the earlier-flowering varieties of the above have already been dealt with as previously advised.)

Where *TROPEOLIUM SPECIOSUM* is rambling over living shrubs and growing too thickly, thin out well, for if left to grow into a thicket it will smother and destroy the shrub, and the *Tropaeolum* itself will not flower as freely or be as effective as if only strands of it were left at some distances apart. Grown in this way—the strands allowed freedom to cling, ramble, and festoon in whatever form and direction they choose, without any attempt at formal training—I think this beautiful climber is seen at its best.

YEW, BOX, AND OTHER HEDGES should be clipped, and any shrubs that are trimmed in formal or fantastic ways must often be seen to, so that no shoot takes the lead to the detriment of the others.

PINKS—The growths of these are now in good order to insert pipings in hand-lights, pits, or frames, according to requirements and stock to be provided. Keep them close for two or three weeks, excepting for a short time daily, when a chink of air should be admitted for an hour or so

to dry up condensed moisture. Shade from bright sun and dew lightly occasionally, but avoid saturating the soil. Considerable care is needed with some of the newer sorts, for I fear they are more delicate and will not stand the rough usage often meted out to the old Fringed Pink, and are not of such free growth, but they are an acquisition, very beautiful, later than the type, and well deserving an extra effort to grow and increase the stock of them.

ANNUALS sown where intended to bloom, whether in drills or clumps, must be thinned out with a free hand if the best and most lasting result is to follow, and if the weather be dry give a soaking of water to settle the soil around the disturbed roots of those left, or some will suffer from the check.

WALLFLOWERS should be pricked out a few inches apart as fast as they become large enough to handle, for if left too thickly in the drills many will damp off. They can be transferred later to other quarters to complete their growth before being planted out where they are to flower, Sow Brompton and Intermediate Stocks, and more Polyanthus, *Myosotis*, *Silene*, and other annuals for next spring's flowering.

The Gardens, Tan-y-bwlch, North Wales.

J. ROBERTS.

INDOOR GARDEN.

BULBS.—Where bulbs for early forcing are grown, no time should be lost in ordering them, and especially Roman Hyacinths, Paper White Narcissus, and, if more variety be required, Early Snowflake Narcissus may be included. At all times only bulbs of good quality should be grown for forcing; for very early work it is still more important. No more, if as much, labour is necessary to grow good bulbs as those of inferior quality. Lilliums are making a good show. Keep the later ones at the back of a north wall or in a house of the same aspect to retard the flowering period as much as possible.

SALVIA.—Many of the *Salvias* are ready for the flowering pots. By pinching some of the plants later than others the flowering period can be considerably lengthened. Some require slightly different treatment to others. *S. azurea grandiflora* (syn. *Fitcheri*), if stopped more than two or three times, produces very weak growth. With this variety it is advisable to grow three plants in a 9-inch or 10-inch pot. Grow all in a frame till rooting in the new soil, when they can be transferred to the open air. When stopping the plants, a few of the tops can be inserted for flowering in small pots.

POTTING.—Quite a number of winter-flowering plants are ready for the final potting, *Reinwardias*, *Peristropheas*, *Begonias*, *Eupatoriums*, &c. Return to an intermediate house for a time after potting, keeping the house rather close for a few days. The plants like a moist atmosphere, so the syringe can be used freely, not only to encourage the growth of the plants, but also to keep down insect pests. Red spider is often very troublesome at this time of year. Nothing encourages it more than a dry atmosphere. There are still a few hard-wooded plants to pot as the flowering period ends. *Polygalas*, *Pimelias*, and *Platythecas* are ready for potting any time when opportunity occurs.

THE AMATEUR'S GREENHOUSE.—Plenty of flowers are now rewarding the cultivator. The zonal *Geraniums* are a mass of flower; the double varieties last much longer than the singles. To prevent the latter shattering so soon place a drop of Floral Gum in the centre of each flower with a small oil-can. A few seedlings raised annually add considerable interest to their cultivation. Select several of the largest and best-shaped flowers for crossing. The colour of the flower has also to be considered. The tuberous *Begonias* are coming into flower. To increase the size of the flower, especially of the double varieties, the female flowers should be removed.

A few cuttings of *Coleus* may be put in for a late batch. Keep the large plants in shape by removing the points of the shoots occasionally. Insert a few *Selaginella* cuttings for use during the winter. Many of the vigorous young Ferns are ready for potting on. Cut off several old fronds of *Asplenium bulbiferum* covered with young plants. Peg them on a pan of light soil or on the fibre in the propagating frame, where they will soon root.

Royal Botanic Gardens, Kew.

A. OSBORN.

FRUIT GARDEN.

PINEAPPLES.—There should be no delay now in potting the main batch of Queen suckers, so that they may make as much growth as possible before the end of the season. A low pit is a very suitable place to grow them in till they need repotting. Thoroughly cleanse the pit and lime wash the walls. A hot-bed should be in readiness to receive the plants as soon as they are potted. Oak leaves with a little stable manure at the bottom will make an excellent plunging material. The temperature of this should be about 90° when the plants are plunged, eventually declining to 85°. Good fibrous loam pulled up by hand and in good workable condition is all that is required to plant them in at this stage; 6-inch or 7-inch pots, according to the size of the suckers, will be suitable. It is important that they should be well drained so that water may pass through freely. Remove several of the bottom leaves, place the suckers in the pot fairly deep, and pot firm. If the soil is in proper condition they will not require watering till root action has commenced. Keep the pit close and humid for two or three weeks. Shade from bright sun until it can be seen that the roots are active. After then air may be gradually increased and less shading given till the plants are inured to the sun. During warm congenial weather fire-heat may be dispensed with. This may be applied to plants in all stages of growth.

STRAWBERRIES IN POTS.—The plants intended for early forcing should be placed in their fruiting pots as soon as they are sufficiently rooted. It is essential that the earliest plants for forcing be well rooted, and the crowns properly ripened by the end of the season. Six-inch pots are suitable for both early and late batches. Make sure the pots are efficiently drained, not using too many crocks, for this is a waste of valuable space. The Strawberry enjoys a rich rooting medium, fairly heavy loam, with a quantity of well-fermented horse manure; half-inch bones and lime rubble will make a suitable compost. A sprinkling of soot on the crocks before potting will keep worms away. Put firmly, keeping the crowns a little above the surface of the soil. Place them on a bed of ashes in an exposed position where they can have full benefit of the sun all through the day; syringe morning and late in the afternoon. Keep runners pinched off, and encourage them to make only one crown.

OLD PLANTATIONS from which the fruit has been gathered should be cleared off the ground. Those intended to remain for another season must receive attention with a view to building up strong crowns for producing next year's crop. All exhausted foliage, runners, and weeds must be removed; lightly fork between the plants, and thoroughly soak the ground, if necessary, with a hose-pipe. Later on a good application of liquid manure will do much good. Slugs have done much damage to the early fruit, and it will be well to go over late crops and lift the fruit off the ground, removing those which have commenced to decay.

E. HARRIS.

Fruit Department, Royal Gardens, Windsor.

KITCHEN GARDEN.

BROCCOLI.—These vegetables for late autumn and early winter use must now receive due attention. Supply pricked out plants with water in dry weather, so that their growth may be maintained. Move plants which are ready into their permanent quarters. Varieties intended for cutting about Christmas and afterwards should not be planted where the soil is very rich. Long experience has taught me that medium-sized plants are better able to withstand sharp snaps of frost than those of a larger growth. A plot of ground where exhausted Strawberries have been trenched down, or one from which early Potatoes have just been lifted, are both suitable places whereon to grow Broccoli. Make sure that no Potatoes are left in the ground, which should be lightly forked over, levelled, and made moderately firm before drawing out the drills. Allow plenty of space between the rows, and also between the plants, to ensure sturdy growth. I have frequently noticed that where Broccoli plantations present a semi-starved appearance failures have seldom to be recorded, whereas the opposite has been the result with those of grosser growth. The following varieties I have found most reliable, and they will come in rotation as they are named below. Sutton's Michaelmas White and Christmas White are too well known to need praise. Good plantations of these two varieties will yield abundant supplies from the end of September till the turn of the year. To succeed these Snow's Winter White and Vanguard are good reliable sorts. A plantation of the Early Purple Sprouting Broccoli will be found useful should a gap occur, as it is a very hardy Broccoli and can be depended upon even in very cold districts.

MULCHING PEAS.—These respond readily to judicious mulching, and for this purpose nothing beats the material from a spent Mushroom bed. Run the Dutch hoe down each side of the rows to break the surface soil, and fill in cracks, give a good soaking of water, and cover with the mulching material quite 18 inches wide on each side of the rows of Peas. After completing this process subsequent waterings are not likely to be required. Should mildew make its appearance, a slight dusting of sulphur will help to check the malady.

CUCUMBERS in frames are growing fast, and demand attention by way of top-dressing, stopping, &c. Let a handful or two of artificial manure be mixed with a sufficient quantity of good soil and applied as a top-dressing; give the plants a thorough good soaking of water, then spread over all some well-decayed leaf-mould, which will greatly encourage surface root growth and prevent evaporation. Frequent dribbles of water are unsatisfactory elements in Cucumber cultivation. J. JEFFREY.

The Gardens, St. Mary's Isle, Kirkcubright.

ORCHIDS.

IN THE COOL HOUSE there are several plants that require to be repotted or resurfaced at once, the more important being *Oncidium concolor*, *O. varicosum*, *O. Forbesii*, *O. crispum*, *O. pre-textum*, *O. ramosum*, *Odontoglossum ramosissimum*, and *O. pulchellum*. All of these species succeed in pots placed upon the stage, but if more convenient they may be suspended from the roof. Such Orchids as *Odontoglossum Rossii*, *O. Cervantesii*, *O. Crestedii*, *O. maculatum*, *O. cordatum*, *O. madrense*, *O. aspersum*, *O. humeanum*, and *O. duvivierianum* are all well worth growing in quantity, especially on account of their free flowering. Most of them flower during the winter months, the blooms remaining fresh for a period of from eight to ten weeks. These dwarf-growing plants can be cultivated very well in shallow pans suspended close to the roof glass of the house. All the *Odontoglossums* and *Oncidiums* here enumerated root freely and grow thoroughly well in a compost consisting of one-half leaf soil, one-fourth good fibrous peat, and one-fourth chopped sphagnum moss, adding a moderate sprinkling of broken crocks and a little silver sand. Prior to use, the whole should be thoroughly well mixed together. Small pots are preferable to large ones, and very little drainage is required, merely placing a large piece of crock over the hole at the

bottom of the pot and then covering it with a few smaller pieces. When repotting, fill the pots to within half an inch of the rim with the soil; pot moderately firm, and then finish off with a surface of living sphagnum. In this mixture the plants should never be thoroughly soaked through with water. When in full growth a light spraying overhead several times a day will be beneficial towards the promotion of strong healthy growth. Such

MAXILLARIAS as *M. sanderiana*, *M. amesiana*, *M. prestans*, *M. kimballiana*, *M. grandiflora*, *M. venusta*, *M. fucata*, *M. Hubeschii*, *M. tenuifolia*, *M. Meisneri*, *M. luteo-alba*, *M. lepidota*, *M. Turnerii*, *M. elegantula*, and *M. dichroma* will now require attention, as some of them may need larger receptacles or fresh material. The first two named species frequently thrust their flowers through the soil in a downward direction, like the *Stanhopeas*; therefore Teakwood basket culture is advisable, and for the same reason no crocks should be used for drainage. Instead, place some thick, well-dried pieces of Fern rhizome across the bottom rods of the basket, and over these a thin layer of rough sphagnum moss. The other varieties mentioned grow freely in an ordinary flower pot or shallow pan. Nearly all these *Maxillarias*, when in a thriving condition, make large quantities of small thin roots, and prefer a compost consisting of three parts sphagnum moss to one of peat, intermixed with plenty of small clean crocks and coarse silver sand. *Maxillarias* generally do best with a little more warmth, and with less water at the root than the cool *Odontoglossums* and *Masdevallias*, but where this cannot be afforded them they may be placed at the warmest end of the *Odontoglossum* house, admitting less air near them, or they may be placed in the cooler part of the intermediate house. *Masdevallias* need to be kept moist at the roots all the year, and during the hot summer months should be rather heavily shaded.

The dwarf-growing *Promenæa* (*Zygopetalum*) *citrina*, *P. stapelioides*, and *P. Rollisonii* form pretty little subjects when in bloom. They succeed well in shallow pans, and in the same kind of material as previously advised for the *Oncidiums*, &c. When making their growth suspend them close to the roof glass of the cool house, and treat them exactly the same as such *Odontoglossums* as *O. Rossii*, &c. *Promenæas* require the extra warmth of the intermediate house when opening their blooms. The sweet-scented *Aerides japonicum*, *Angraecum falcatum*, and *Sarcophilus Fitzgeraldii* and *S. Hartmannii* should also be grown in this house.

Burford Gardens, Dorking.

W. H. WHITE.

THE KITCHEN GARDEN.

A NEW TOMATO—CARTER'S SUNRISE.

I HAVE this week seen a splendid crop of the above new Tomato, and it was so good that I am sure your readers who like this fruit will be glad to know that in Sunrise we have a great acquisition. I have plants of this variety also on trial, but owing to various circumstances I did not sow early; even in a young state Sunrise promises to be a grand cropper. As the quality also is excellent this new Tomato will be much liked. I am aware there is no lack of good Tomatoes; some are also very large, but the fruits in this variety more resemble those of Conference, and are produced in great quantity—ten to twelve on a cluster. They are perfect as regards shape; they have a rich flavour, are just the size for salads, and also for cooking. The plant is remarkably healthy and vigorous, and though I have only seen it under pot culture, there is no doubt that it will be quite valuable when grown in beds; it should also make a most valuable variety for outdoor culture, owing to its good habit and earliness. In the latter respect it is in advance of older varieties, when given only ordinary culture. G. WYTHES.

A NEW PEA—CARTER'S LITTLE MARVEL.

LAST February I had the above Pea sent me for trial, and few of the dwarf section have given greater satisfaction. Dwarf Peas find more favour with those who have none too much space, and Little Marvel is worth a special note for its excellence, not only as a great cropper, but for its quality also. It may be described as a first early green variety, with a great deal of Marrow blood, and the pods are produced in profusion, so much

so that it is most valuable for first crop. The pods are of medium size, and packed as close as possible with Peas; the haulm is from 15 inches to 18 inches in height, strong, and remarkably healthy. This should be a splendid Pea for amateurs who have none too much room, and who do not want to find sticks or supports. It is equally as valuable to gardeners who require late and early supplies. Sown in July it is most reliable for late dishes in September; and when so large a supply can be secured from such a small space it is worth attention. Sown early in February we had pods ready the first week in June. This shows how early it is. G. WYTHES.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR of THE GARDEN, 5, Southampton Street, Strand, London. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

Legal Points.—We are prepared to answer questions of law which have anything to do with the subject of gardening and forestry. The questions should be as clear and explicit as possible, so that there can be no doubt as to the point of the question. Answers will be found in a separate column headed "Legal Points."

MANURING LAWN (E. C. M.).—It would not do to use the contents of a cess-pit direct on to a tennis lawn. Besides being very offensive, it would probably kill the grass. Your best course would be to accumulate a good heap of gritty soil from any sources that may be available, or, failing gritty soil, then some rough screened from the garden. When the cess-pit is emptied, open the heap in the form of a bay, put the contents of the pit into it, then cast some of the soil over it to both cover it and help absorb or dry it. Early in the winter have the whole turned and mixed, and if you could at the same time give the material a heavy dressing of soot great good would be done. The heap would need one or two other turnings and mixings, and then be dressed evenly and thinly over the lawn. Frost would help to dry and break it up; then it should be well distributed with the aid of a wooden rake. It would during the winter wash in and do great good.

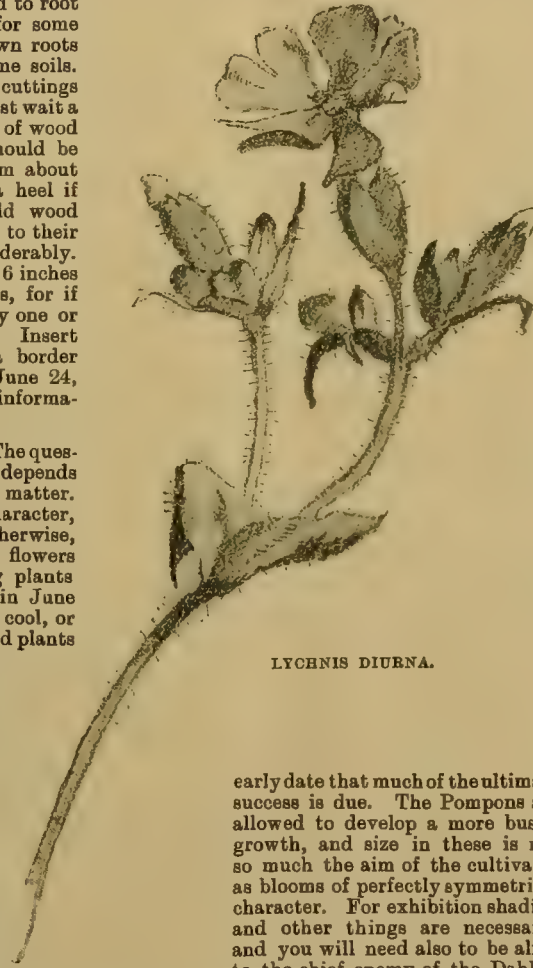
TREATMENT OF POTATOES (H. J. S.).—There can be little doubt that the Potato is much benefited by moulding. The best time to do this is before the tuber is formed, at least before it has attained any size, that is when the top growth is about 6 inches above the soil. Even in this work, which many would think of little importance, there is a certain amount of care required, not so much in burying the haulm as in drawing up soil to cover the new growth and support it. The moulding is absolutely necessary in all soils. Though the soil may be heavy, it is possible by good working to make it suitable. We know that means more labour, but it is well repaid, and in such soil it is important to grow strong growers (not the Ashleaf section), to give more room, and in the winter months add such materials to the soil as will lighten and improve it, such as road sand, burnt soils or refuse, old mortar or spent lime, or any light material. Fourthly, once the tubers are "greened" that cannot be altered by moulding, and "greening" should be avoided except for seed purposes.

GARDEN MANURE (M. W. C.).—To have stable manure in the best possible condition for use in either vegetable or flower garden, collect it into a heap and take out the longest straw and dry it for use again if needed. Keep the heap well mixed by turning it once a week for a month. If tending to become dry, cast water over it when the turning takes place, yet only sufficient for the manure to absorb. So treated, the manure loses its caustic properties, and when applied to ground becomes at once a soluble plant food, sweet and healthy. For flowers it is well to apply manure more thinly than for vegetables; indeed, old hot-beds make the best flower garden manure. Animal manures should never be applied in crude form, but if prepared as advised they are far more suitable and efficacious.

ROSE CUTTINGS (Mrs. Clarke).—It is quite a simple matter to take Rose cuttings and to root them, and it is well worth practising, for some varieties of Roses do better on their own roots than when grafted, and especially on some soils. October is a good month to insert Rose cuttings if the wood is ripe; if not ripe then you must wait a few weeks longer. They should be made of wood of the current year's growth; this should be moderately strong and firm; make them about 9 inches long. Take them off with a heel if possible, i.e., with a piece of the old wood attached; this, however, is not essential to their rooting, although it helps them considerably. The cuttings should be put in the soil 6 inches deep. Do not remove any of the eyes, for if those above ground should die very likely one or more of those beneath the soil will grow. Insert the cuttings firmly in sandy soil on a border facing north. See THE GARDEN for June 24, page 370, and July 1, page 398, for other information about Rose cuttings.

DAHLIAS: HOW TO GROW (C. A. T.).—The question of how to grow and how to stake, &c., depends greatly upon your own desires in the matter. If you wish for blooms of a high-class character, whether intended for exhibition or otherwise, you will find much to do in bringing the flowers to perfection. For instance, very strong plants should have been put out quite early in June either from pot-roots of last year, grown cool, or the more vigorous and recently propagated plants of this year. Plant at 5 feet asunder, and in the centre of a hole which is virtually a depression. Each position should be well prepared by trenching the soil and inserting rather deeply a month before planting time a barrowful of well-decayed manure in each yard-wide hole. The prepared surface of the latter should be 4 inches below the ordinary level, to permit of thorough watering and manure mulching in dry weather. Plant firmly, and place a light stake to each plant as soon as the latter is firm in its position. For the time being, excepting that you discourage any superfluous shoots that may appear at the base, you have nothing to do beyond stirring the soil about the plants once or twice each week. When the plants are 12 inches to 15 inches high, remove the point of the main shoot if early flowers are required, or allow the shoot to grow and flower, eventually selecting four or five other shoots for flowering. If you wish for quite high-class blooms, five main shoots to each plant of any of the show or fancy kinds will be ample. Each shoot must be tied out and staked singly, the stake placed early in position, with its pointed base not far from the plant, the top of the stake leaning in an outward direction. The shoots, tied securely to these stakes, develop short-jointed growths and firm, and these are the more reliable for providing regular and solid blooms. If you desire blooms of moderate size, you may encourage six main shoots and allow these to carry more flowers. On no account should Dahlias be bunched up besom fashion, for the shoots and the flowers will be all too puny

and weak. A few good blooms are distinctly satisfying to the amateur, and by not permitting the plants to run wild from the beginning a good result should follow. The side shoots may be lightly or more severely thinned, according as you wish for large or moderately large blooms. This should be early decided in all cases. The same holds good in respect to bud thinning. Generally speaking, the Cactus-flowered section produce lateral shoots or growths more numerous than the others named. But here, also, the well-exposed, well-matured shoots give the best-formed flowers. More than one exhibitor of these has trained his plants to a tall, open fence, training the branches in thinly, so that full exposure ensues. It is, indeed, due to the training of the plants in this way from quite an



LYCHNIS DIURNA.

early date that much of the ultimate success is due. The Pompons are allowed to develop a more bushy growth, and size in these is not so much the aim of the cultivator as blooms of perfectly symmetrical character. For exhibition shading and other things are necessary, and you will need also to be alive to the chief enemy of the Dahlia, viz., the earwig, which is easily entrapped by placing on each stake an inverted flower-pot with a little fine hay in the bottom. Into this the pest finds its way, and can be speedily disposed of.

LYCHNIS DIURNA (A. W. G.).—This is the name of the flower you mean, and we give an illustration of it. It is common in Britain in moist, shady places, in woods, and hedge banks. The flowers are red and scentless, and open in the morning. It flowers all summer, commencing in spring. The flowers of the white *Lychnis* (*L. vespertina*) do not open until the evening, and are slightly scented. This, too, flowers throughout the summer.

SMALL ROCK GARDEN (J. C. J.).—In the first place you will require to select a suitable site, and a good position would be that having a westerly aspect; if you have a choice of positions, a cool dell with trees around, and where

excesses of neither drought nor sunshine abound. Nearly all the Fern tribe are shade-loving; so much so, indeed, that while a few species do not refuse to grow in the sunniest of crags or crevices, yet they only develop a puny growth as compared with that developed in a more suitable position. If, therefore, you have it at disposal, select a bank side, tree-topped, with a western exposure. This is the ideal spot for many hardy Ferns, and, subject to suitable soil and the usually free drainage that such a position commands, the rest will be simple enough. Unfortunately, you have omitted to give any clue as to the natural soil of the garden, and you do not say whether it is a flat area or one of those rugged picturesque spots that render good gardening so easy. As to soil, most Ferns grow freely when planted in rich vegetable earth, leaf-mould, peat, and loam in equal parts. Peat, however, is not essential, and good loam, a little manure—always well decayed for Ferns—with leaf-soil and a little sand will suit a large number. If rocks are scarce or expensive, tree-stumps will do quite well, and in the indicated positions will be more suitable than stone. A sharp bank, sheltered, rugged, and not too impoverished by tree-roots, could be so arranged that the base may be clothed with the more moisture-loving kinds, and, if water could be had, *Struthiopteris*, *Osmundas*, and the like could be colonised in nearly or quite wet places. So far as the arrangement is concerned this must be controlled by the position available, but in every instance you will not err in so arranging matters that at least 18 inches of good soil exists—not absolutely made soil, but the natural soil of the position to be so dug out and intermingled with better material that there exists a rooting medium for the plants similar to that we have stated. Tree-stumps not only assist in retaining the soil of the bank; they are by their very nature suited for association with many Ferns. You ask us to name the most suitable kinds, and here again the position, and in particular its extent, length, height, &c., will have much to do with the selection. If quite small, however, the list of kinds should include all the forms of *Polypodium vulgare*, also *P. cambricum*, the best of this group when well grown. You will also find in this same genera—i.e., *Polypodium*, the Oak, Beech, and Limestone Ferns. Other good things are *Cystopteris montana*, *Lastrea montana*, *Polystichum lonchitis*, *Blechnums*, *Scolopendriums* in variety, many of the smaller growing *Athyriums*, &c. Where many small crevices abound, a large number of such things as *Asplenium Trichomanes* could be introduced. Such a rockery could at any time be planted if the plants were established in pots. Otherwise the autumn or quite early in spring should be chosen.

PHLOX DISEASED (G. B.).—We are unable to discover any specific disease in the examples sent, nor is there any present sign of nematode worm, the tissues being quite clear—though soft—and the cells abnormally large. In these circumstances we have come to the conclusion that the trouble is a local one—something present in or absent from the soil. The disease so-called may, in all probability, be traceable to acidity of the soil, and if this be so a small quantity of slaked lime sprinkled on the soil and lightly forked in may assist the plants. We suspect an exhausted condition of the soil near the plants has much to do with it; but you say nothing about the soil or the length of time the plants have been growing in their present position. We note your plants "are all more or less affected" in the same way, and this lends colour to our belief. For the present pull away and burn all the affected parts, and either apply a light lime dressing or water occasionally with lime-water and note the results. Young plants are rarely troubled in this way, and we advise you to root many cuttings of each variety this autumn; dig up and burn the old stock, and make a fresh planting in a new position in March, 1906.

PEACHES AND NECTARINES DISEASED (J. E. D.).—Your fruit bears traces of having been frost-bitten. We think that the severe frost of May 22 and 23 is responsible for the injury, the same as it has been in a great number of other gardens in the same counties.

KEEPING POND FREE FROM SCUM (Gib)—If the ponds are free from water snails, keep them so. The best way to keep down the scum, which is generally troublesome till the plants get well into growth, is to get a long handle and make a skimmer of very fine wire-netting, and fasten to the end of the handle. Skim the ponds about twice weekly, afterwards throwing a heavy spray of water over the surface. I find this practice answers till the plants are of sufficient size to keep it clean themselves. Water snails will not keep down scum, but they injure many of the water plants.—W. J. TOWNSEND.

DAFFODILS FAILING (R. D.)—Do we clearly understand you when you say hundreds are this year blind; that is, has a flower-stem been produced and failed to expand the blossom, or is it, what is most likely, simply a case of non-flowering? If the latter, it may be due to two causes—poverty of the soil, or the splitting up of the breeder or mother bulbs. The varieties you name rarely suffer from blindness, and in the circumstances the foliage will be your best guide. If healthy, strong, and 20 inches to 24 inches in length, we should say the bulbs would flower next season. If thin, brown-tipped, and short in growth the bulbs are going back, for which lifting, resting, and replanting after six weeks is the best remedy. Usually the varieties *Stella* and *Princes* are vigorous growers, and you do not say how long they have been in their present position. Regarded generally it seems a case of poverty of soil, and no mulching can now remedy the defect. The non-flowering you have this year experienced is the obvious outcome of poverty a year ago; the flower germ for 1905 is laid, and exists in embryo practically with the maturing of the foliage in 1904, and, if the bulb does not contain the germ, no flowering can possibly ensue.

BLIGHT ON FRUIT TREES (E. F. Smith)—Your fruit trees are attacked by American blight or woolly aphid (*Schizoneura lanigera*). This pest should always be dealt with as soon as it is noticed. Fortunately, it always advertises its presence by the tufts of white wool-like substance with which the insect surrounds itself. The best thing to do is to scrub the affected parts of the boughs, &c., with a stiff brush dipped in a strong solution of paraffin emulsion, or some other insecticide containing paraffin and soft soap, making sure that the solution gets into all the inequalities of the bark. Where this is impossible, the trees should be sprayed or syringed with the paraffin emulsion now, and, after the leaves are fallen, with a caustic alkali solution. When small tufts are seen on young shoots, if the spot be "dabbed" with a camel's hair brush dipped in methylated spirit or turpentine this will kill the insects.—G. S. S.

VINE DECAYING (E. M. B.).—The fasciated growth (or puckering as you term it) in the Vine foliage is very unusual, and is the result, we think, of some derangement of the sap vessels of the young rod in question, causing obstruction to the circulation of the sap; we can trace no disease or insects on the foliage. Regarding the failure of this one, whilst the others are so strong and vigorous, it is difficult to say what the cause may have been without seeing the Vine. But in similar cases which have come before us we have invariably found the cause to be an accidental twisting of the rod while pruning at or near its junction with the main stem, or in twisting the rods backwards and forwards whilst the roof of the greenhouse is being washed, and that without the knowledge of the pruner. Sometimes the Vine weevil is responsible, piercing holes through the stem, as it sometimes does, unobserved. In either case the tissues of the wood are ruptured.

We would not cut the rod off just now or the Vine might be injured by serious bleeding, but would rub off all young shoots, leaving the rod quite bare for a month or five weeks, when it may be cut off without danger of bleeding. Should there be a young shoot available somewhere near the base of the one to be cut away it should be encouraged to grow to take its place. In any case there will be no difficulty in obtaining one next year.

CATERPILLAR (C. E. F.).—The so-called caterpillar that you found feeding on the leaves of the Paper Birch is the grub of one of the saw flies. I am sorry to say that, owing to the insect having escaped when I opened the box again to examine it more carefully, I am unable to give you its generic and specific names, but, if you wish to know them and will kindly send up other specimens, I will be more careful with them.—G. S. S.

BROWN INSECTS ON ROSE BUDS (Meta).—The brown insects which you found on the Rose bud are the dead bodies of the common green fly, which have been attacked by one of the small parasitic ichneumon flies belonging to the family Chalcidæ. These flies lay their eggs in the bodies of the green flies, generally only one in each. The grubs when hatched feed on the contents of the bodies of their victims. This action of the parasite causes the body of the aphid to become globular in form, the insect eventually dies, and when the parasite has undergone its transformations it cuts a small circular hole in the skin of its host and emerges as a perfect ichneumon fly. These brown inflated bodies should never be destroyed, for if it was not for these and various other insects, which prey upon the aphides, the latter would be far more abundant even than they are now.—G. S. S.

BLACK SLUGS (Lima).—The large black slugs (*Arion* ater) are very destructive in gardens, and no doubt the large brown ones are also, unless they happen to be specimens of the snail slug (*Testacella haliotoides*). These slugs are decidedly beneficial in gardens, as they feed on worms, small insects, &c. From your letter it is impossible to say whether the brown slugs you find are this species or not, but you can easily determine this by examining one. The snail slug is the only slug which has a visible shell; it is a small brown one at the end of the creature's tail about four-tenths of an inch in length, and somewhat ear-shaped. The shells of all the other slugs are internal and placed much nearer the head, so that you cannot possibly make a mistake as to which kind it is.—G. S. S.

NAMES OF PLANTS.—*W. Batchelor.*—*Fagus sylvatica* heterophylla; 2, *Crataegus tanacetifolia*.—*P. Hornby.*—*Spiraea chamaedrifolia*.—*M. L. D.*—Most of the true *Acacias* are natives of Australia, and none of them are hardy in this country unless in especially favoured districts. The enclosed specimen is what is known as the False *Acacia* (*Robinia Pseudacacia*), a native of the eastern portion of the United States of America. It forms a decidedly handsome and very distinct tree, which is less affected by drought in the summer than many other trees are. There are several varieties of this, one—*decaisneana*—having pinkish blossoms, while *sempervirens* flowers more or less continuously throughout the summer. In habit and foliage characters, too, many varieties differ widely.—*W. S. H.*—These should have been in flower. 1, *Crataegus Oxycantha laciniata*; 2, *C. pyrifolia*; 3, *C. Crus-galli*; 4, *C. coccinea*; 5, *Deutzia scabra*.—*P. Bates.*—It is quite impossible to name from such specimens as received, the petals of the singles had all fallen, and the doubles were shrivelled up. They should have had a little wet wadding round the ends of the stem and a good leaf with each. Even when received in good condition it is almost impossible to name florists' flowers correctly.—*Mrs. Connell.*—*Syrinchium striatum*.—*Pencarne.*—The grassy plant with berries is *Ophiopogon japonicus* (*Flueggea japonica*); the creeper is *Vitis striata*.—*Sojourner.*—1, *Iris graminea*; 2, *I. sibirica*.—*Milrig.*—*Geum rivale*.—*F. Howell.*—*Raphiolepis ovata*.

SHORT REPLIES.—*S. C. S.*—We are unable to name the Carnation for the specimen sent. It appears to be of quite ordinary merit, the calyx being badly split, and we could detect not the least fragrance. By its profuse flowering it would appear to be a tree or perpetual-flowering variety. There are now so many very fine varieties in this section whose petals are held intact by the calyx that we would not feel inclined to retain the variety in question.

LEGAL POINTS.

TRANSFER OF LEASEHOLD PROPERTY (Perplexed Tenant).—If a lease contains a covenant against assigning without the consent of the lessor, his consent in writing should always be obtained before an assignment takes place, otherwise the lessor may become entitled to forfeit the lease.

BARBED WIRE FENCE (Injured).—The Barbed Wire Act, 1893, provides that the local authority may by not less than one month and more than six months notice in writing to the occupier of any land adjoining a highway upon which there is a fence made with barbed wire (i.e., wire with spikes or jagged projections), which may probably be injurious to persons or animals lawfully using the highway, require such occupier to abate the nuisance caused by such fence. In default, the local authority may obtain an order from a Court of Summary Jurisdiction directing the abatement of the nuisance. If such order is not complied with, the local authority may abate the nuisance at the occupier's expense. If the local authority are themselves the offenders, proceedings may be taken by a ratepayer.

WATER RATE: HOSE FOR WATERING GARDEN (Novice).—Your liability to pay an extra water rate if you use 2 yards of india-rubber hose connected with the kitchen tap for the purpose of watering your garden depends upon the terms of the special Act by virtue of which the water is supplied in the district in which you live. The special Acts of some companies provide that a supply of water for domestic purposes shall not include a supply (*inter alia*) "for watering gardens by means of any tap, tube, pipe, or other such-like apparatus." The demand notes issued by water companies usually contain extracts from their special Acts showing what they are entitled to charge as "extras." If you cannot satisfy yourself as to the company's rights by an inspection of the demand note, you had better go to the offices of the corporation or company and inspect the special Act, or probably you can see a copy at the free library.

ARCHITECTS (S. L. H.).—In the absence of special arrangement an architect is paid by commission on the cost of the work executed, the rate being 5 per cent., which covers the preparation of the plans and all attendances for inspection, measurement, certificates for the builder, &c. The architect is also entitled to his travelling expenses. If plans are prepared, but not used, the customary charge is 2½ per cent. upon the estimated cost of the work. Most building contracts provide that the architect shall be at liberty to order extras, and if the employer wishes to limit the powers of the architect in this respect, he should be careful to make an agreement with him to that effect before the commencement of the work; indeed, it is always desirable that there should be a written agreement. A letter is sufficient if it clearly sets out the terms of the architect's employment. Usually, it is the duty of the architect to prepare the plans and specifications and to issue the invitations for tenders. In the country the bills of quantities, i.e., the documents which describe in detail the amount of labour and material required, are usually prepared by the architect, who receives an additional percentage for this work. In the metropolis the bills of quantities are prepared by quantity surveyors, who receive 2½ per cent. on the cost of the work for their remuneration. Building contracts usually provide that the builder shall be paid on the architect's certificate as to the progress of the works. If the giving of the certificate is made a condition precedent to payment, the builder cannot obtain payment until the certificate has been given, but if it is fraudulently withheld the builder may sue the employer for the amount which he alleges to be due, and also sue the architect for damages.

FOX-HUNTING (Farmer).—Persons hunting for their own amusement and going over lands of another are trespassers, and fox-hunters, like all other hunters, may be warned off. The master of hounds and huntsmen are liable for the damage occasioned by acts of trespass on the part of persons following the hounds, unless they have distinctly desired them not to go on the plaintiff's lands. It is an invasion of property to ride over the land of another without his permission, and the owner may consequently sue for damages, although he may have sustained none.

HEAD GARDENER (Notice).—In the absence of a special agreement a head gardener is entitled to a calendar month's notice, i.e., a month of thirty days, or a month's wages in lieu of notice. Under gardeners engaged by the week and paid by the week can be dismissed by a week's notice. The death of the master puts an end to the contract of service. A domestic servant on the death of the master is entitled to the wages earned by him down to the date of the master's death. It is, however, usual to pay a domestic servant a month's wages as from the date of the death.

SOCIETIES.

NATIONAL ROSE SOCIETY'S SHOW.

The annual exhibition of this society, held in the Royal Botanic Gardens, Regent's Park, on the 6th inst., was a most delightful function, favoured by perfect weather, a large attendance, and an excellent display of Roses. The show was honoured by a visit from Her Majesty the Queen, and this, no doubt, had a good deal to do with the attendance of so large and fashionable a gathering. Full particulars of the exhibits will be found below. Mention, however, must be made of the magnificent bloom of J. B. Clark (new), shown by Mr. Hugh Dickson, Belfast, which gained the silver medal for the best Hybrid Tea (nurserymen), and of the splendid exhibit of eighteen blooms of A. K. Williams, from Messrs. B. R. Cant and Sons, Old Rose Gardens, Colchester. One of these gained the silver medal for the best Hybrid Perpetual (nurserymen), and the other blooms were almost as good. The success of this more or less experimental show in the Botanic Gardens must have been very gratifying to the president (Mr. C. E. Shea), the hon. secretary (Mr. E. Mawley), the hon. treasurer (Mr. H. E. Molyneux), the committee, and Mr. E. F. Hawes, garden superintendent.

NURSERYMEN.—GENERAL SECTION.

In the champion class, for seventy-two blooms, distinct varieties, the first prize was won by Messrs. E. R. Cant and Sons, The Old Rose Gardens, Colchester, with an exhibit that contained many perfect blooms. Tom Wood, Killarney, Mme. de Watteville, Duchess of Portland, Mrs. Mawley, Reynolds Hole, A. K. Williams, Muriel Grahame, Fisher Holmes, and Xavier Olibo were as fine flowers as one could wish to see; in fact, the blooms throughout this exhibit were of uniform excellent quality. The second prize was won by Messrs. A. Dickson and Sons, Limited, Newtownards, County Down, with an exhibit that, although less uniform, contained many fine flowers. Especially good were Pharisæa, Mrs. Myles Kennedy (new), Lady Ashtown, Killarney, Frau Karl Druschki, and Horace Vernet. Third, Messrs. D. Prior and Son, Colchester; fourth, Messrs. Frank Cant and Co., Colchester.

Forty distinct varieties, three blooms of each: First, Messrs. Dickson and Sons, Newtownards, Killarney, Mrs. W. J. Grant, Horace Vernet, and Mildred Grant being the best among some beautiful blooms; second, Messrs. B. R. Cant and Sons, Old Rose Gardens, Colchester, Papa Lambert, Duke of Wellington, Bessie Brown, White Maman Cochet, and Mme. de Watteville being finely shown; third, Messrs. D. Prior and Son, Colchester.

Forty-eight blooms, distinct: First, Mr. Hugh Dickson, Royal Nurseries, Belfast, with a collection of very fine blooms. The best was a magnificent bloom of the new H. T. J. B. Clark. It was awarded the silver medal as the best Hybrid Tea Rose in the show. Other splendid flowers were Hugh Dickson, Horace Vernet, Fisher Holmes, Mrs. Mawley, Margaret Dickson, E. Y. Teas, and others. Second, Messrs. J. Barrell and Co., Cambridge, with an even lot of good blooms; third, Mr. J. Mount, Canterbury.

Twenty-four blooms, distinct: First, Mr. Charles Turner, Slough, with some flowers of excellent form, particularly Horace Vernet, White Maman Cochet, A. K. Williams, Maman Cochet, and Mrs. Laing; second, Mr. John Mattock, New Headington, Oxford; third, Mr. J. Prince, Longworth, Berks, both of whom showed well.

The class for twenty distinct varieties, three blooms of each, to be shown in Bamboo tripods, made a charming display. The first prize was won by Mr. Hugh Dickson, Belfast, with some splendid blooms of Horace Vernet, J. B. Clark, Charles Lefebvre, Hugh Dickson, and others; second, Mr. Charles Turner, Slough, with Horace Vernet, Comtesse de Nadailac, and Ellen Drew among the best; third, Messrs. G. and W. Burch, Peterborough. There were two more competitors.

TEA AND NOISSETTE SECTION.

Twenty-four blooms, distinct: First, Messrs. Frank Cant and Co., Braiswick Nursery, Colchester, with some beautiful flowers. Ernest Metz, Bidesmaid, White Maman Cochet, Comtesse de Nadailac, and E. hel Brownlee were perfect. Second, Messrs. Benjamin E. Cant and Sons, Old Rose Gardens, Colchester, with very good Mme. Cusin, Souvenir de Pierre Notting, Maman Cochet, and others; third, Messrs. D. Prior and Son, Colchester.

Twelve blooms, distinct: First, Mr. John Mattock, New Headington, Oxford, Bridesmaid, Comtesse de Nadailac, Maman Cochet, and Mrs. Mawley being his best; second, Messrs. J. Burrell and Co., Cambridge; third, Mr. Charles Turner, Slough.

Fourteen distinct, three blooms of each: First, Messrs. Frank Cant and Co., Braiswick Nursery, Colchester, with splendid Mme. Cusin, Mrs. E. Mawley, Mme. de Watteville, Catherine Mermet, and others; second, Messrs. D. Prior and Son, Colchester, Mme. Hoste, Medea, and Mme. Cusin being good; third, Mr. G. Prince, Longworth, Berks.

Twelve distinct varieties, seven blooms of each: First, Messrs. Dickson and Sons, Newtownards, County Down, with splendid flowers, somewhat damaged. Frau Karl Druschki, Mrs. David McKee (primrose-yellow), Mrs. Grant, and Mildred Grant were the best. Second, Messrs. Frank Cant and Co., Braiswick Nursery, Colchester, Mme. Cusin being finely shown; third, Mr. George Mount, Canterbury.

Nine distinct Teas and Noisettes, seven blooms of each: First, Messrs. Frank Cant and Co., Colchester, Mme. Cusin, Maman Cochet, Mrs. Mawley, and White Maman Cochet being excellent; second, Mr. G. Prince, Longworth, Berks; third, Mr. G. Mount, Canterbury.

DECORATIVE ROSES.

Thirty-six distinct varieties: First, Messrs. Frank Cant and Co., Braiswick Nursery, Colchester, with some splendid bunches of garden roses. Irish Glory, Gustave Regis, Alberic Barbier, Queen Mab, Coralina, Marquise de Salisbury, Liberty, and others made a brilliant show; second, Mr. John Mattock, New Headington, Oxford, Lady Battersea, Mme. Havary, Sulphurea, and Runy Queen being of the best; third, Messrs. Paul and Son, Old Nurseries, Cheshunt.

Eighteen distinct varieties: First, Mr. George Prince, Longworth, Berks, with Mme. A. Chalenay, Marquise de Salisbury, Old Pink Moss, and Papa Gontier among the best; second, Mr. Charles Turner, Slough.

Eighteen distinct varieties of summer-flowering roses: First, Mr. Charles Turner, Slough, Old Red Damask, Old Tuscan, Crested Moss, and Flora McIvor being beautiful; second, Messrs. Cooling and Son, Bath.

Eleven distinct varieties, not less than three sprays of each (to be staged in vases to show decorative value): First, Messrs. Cooling and Son, Bath, the Rose Helene being very beautiful; second, Mr. J. Mattock, New Headington, Oxford; third, Mr. George Mount.

GROUPS OF ROSES.

Group of cut roses on the floor: First, Messrs. Paul and Son, Cheshunt, with a very effective display, in which pillars of Crimson Rambler, Blush Rambler, Hendersoni, and others were arranged between baskets and bowls and vases of cut blooms of many beautiful sorts. Of the latter Mrs. W. J. Grant, Lady Battersea, Mme. Jules Grolez, General Jacqueminot, and Dandy (new) were very good. Mr. Charles Turner, Slough, was second; and Mr. G. Mount, Canterbury, third.

Group of roses on staging (100 square feet space): First, Messrs. George Jackman and Sons, Woking, with a handsome display, many varieties of garden roses being freely and effectively arranged in vases; second, Mr. George Mount, Canterbury; third, Messrs. W. Spooner and Son, Arthur's Bridge Nursery, Woking.

OPEN CLASSES.—GENERAL SECTION.

Twelve blooms of certain Hybrid Teas, distinct: First, Messrs. A. Dickson and Sons, Newtownards, Killarney, Liberty, Countess of Derby, and Mildred Grant being the best; second, Messrs. Frank Cant and Co., Colchester; third, Messrs. B. R. Cant and Sons, Colchester.

Eighteen blooms of any white or yellow Rose, shown in a Bamboo tripod were very effective. The first prize was won by Messrs. Frank Cant and Co., Braiswick Nursery, Colchester, with excellent flowers of White Maman Cochet; second, Messrs. Dickson and Son, Newtownards, with Frau Karl Druschki; third, Messrs. B. R. Cant and Sons, Colchester.

Eighteen blooms of any Rose other than white or yellow, to be shown in Bamboo tripod. The exhibits in these classes made an extremely pretty feature, the dark green baize behind showing off the blooms to the best advantage. The first prize stand was shown by Messrs. B. R. Cant and Sons, Old Rose Gardens, Colchester, the variety being A. K. Williams. This was generally admitted to be the most perfect lot of one variety in the show and one of the best ever seen. One of the blooms received the silver medal as the best Hybrid Perpetual in the show; second, Messrs. A. Dickson and Sons, Newtownards, who showed Mrs. W. J. Grant; third, The King's Acre Nurseries, Limited, Hereford, with A. K. Williams.

Nine blooms of any new Rose: First, Mr. Hugh Dickson, Belfast, with very fine blooms of J. B. Clark; second, Messrs. A. Dickson and Sons, Newtownards, with Dean Hole; third, Messrs. Frank Cant and Co., Colchester, with Alice Lindell.

Twelve blooms, distinct varieties, of new roses: First, Messrs. Dickson and Sons, Newtownards, County Down, with a lovely stand. The varieties were Alice Lindell, Lady Ashtown, Countess of Derby, Mme. Paul Olivier, Gustave Grunerwald, Countess Annesley, Mrs. David McKee, Dr. J. Campbell Hall, William Notting, Pharisæa, Dean Hole, and Florence Pemberton. Second, Messrs.

Hugh Dickson, Royal Nurseries, Belfast, Hugh Dickson and J. B. Clarke being two of the best.

DECORATIVE CLASSES.

Arch, decorated with long sprays of not more than two varieties of climbing roses: First, Mr. Charles Turner, Slough, who appropriately used Turner's Crimson Rambler and Aimée Vibert; second, Mr. G. Prince, Longworth, Berks.

Nine distinct varieties of buttonhole roses: First, Mr. G. Prince, Longworth, Berks. Beryl, Lady Battersea, Ma Capucine, and Papa Gontier were included. Second, Mr. John Mattock, New Headington, Oxford; third, Messrs. Frank Cant and Co., Colchester.

Twelve varieties of single-flowered roses: First, Messrs. Cooling and Sons, Bath, Himalaica, Cooling's Crimson Bedder, and Andersoni being included; second, Messrs. Paul and Son, Cheshunt; third, Messrs. Frank Cant and Co.

AMATEURS.

The champion class, for thirty-six blooms, distinct varieties, was represented by three exhibits only, Mr. E. B. Lindell, Bearton, Hitchin, being well ahead with a very bright and beautiful series of flowers. There was a superb bloom of Ulster, and other good blooms were Victor Hugo, Muriel Grahame, Mrs. John Laing, Ulrich Brunner, Killarney, Comtesse de Nadailac, Lady Moyra Beaulere, F. Michelon, A. K. Williams, and Charles Lefebvre. The Rev. J. H. Pemberton, Havering-atte-Bower, Essex, was placed second; and Mr. W. Boyes, 30, Duffield Road, Derby, third.

Four entrants in the class for twenty-four blooms, distinct varieties, made a capital display. In this instance the Rev. J. H. Pemberton was placed in the premier position with a capital lot of flowers. His blooms of Horace Vernet, Ben Cant, François Michelon, A. K. Williams, Mrs. Sharman Crawford, and Marie Baumann were all good. Mr. E. B. Lindell was a close second, his blooms of A. K. Williams and Ulrich Brunner being especially good. Mr. A. Tate, Downside, Leatherhead, was placed third.

There were but two entries in the class for twelve trebles. Mr. E. B. Lindell was first with a good lot of blooms; Ulrich Brunner, Charles Lefebvre, S. M. Rodocanachi, Prince Arthur, and Mrs. John Laing were the best. The Rev. J. H. Pemberton was placed second with a fresh lot of flowers.

For nine blooms of any Rose except Tea or Noisette, to be shown in a Bamboo tripod, there were only two competitors. Mr. A. Hill Gray, Beaulieu, Newbridge, Bath, was first with Frau Karl Druschki. Mr. W. Boyes was second with smaller, though prettier, blooms of the same variety.

The class for twenty-four blooms, distinct, was a popular one. Mr. T. B. Gabriel, Hart Hill, St. John's, Woking, was first out of five competitors, Ulrich Brunner, Muriel Grahame, Lady Moyra Beaulere, and Dr. André being good. The second prize was won by Mr. A. Slaughter, Jarvis Villa, Steyning, Sussex; third, Mr. Edward Mawley, Rosebank, Berkhamstead. The winner of the foregoing class secured the Challenge Cup offered by Captain Christy.

The four competitors in the class for eight distinct trebles made a charming display. First prize was won by Mrs. B. Fortescue, Dropmore, with a pretty series; Mr. A. Slaughter was a good second; third, Mr. W. Colin Romaine, The Priory, Old Windsor.

In the class for seven blooms of any Rose, except Tea or Noisette, to be shown in a single vase, small but fresh flowers of Mrs. Edward Mawley placed Mr. W. Colin Romaine first; Mr. C. C. Williamson, Wilstead, Ethebert Road, Canterbury, was second, with Frau Karl Druschki; and Mr. R. E. West, Firth Dene, Wray Park, Reigate, third. There were four competitors.

Twelve blooms, distinct: Out of nine competitors the first prize was won by Mr. W. Kingston, 52, Waterloo Road, Bedford, A. K. Williams, Frau Karl Druschki, Her Majesty, and others were excellent. Miss E. H. Langton was second; third, Rev. J. B. Shackle, Dropmore Vicarage.

Six exhibitors in the class for five blooms of any Rose except Tea and Noisette were forthcoming. First, the Rev. J. B. Shackle with Frau Karl Druschki; second, Mr. C. F. H. Leslie, Epcombs, Hertfordbury; third, Mr. E. Mocatta, Woburn Palace, Addlestone.

No less than eighteen boxes were set up in the class for nine blooms, distinct varieties, and these made a charming display. The premier position was secured by Mr. R. W. Bowyer, Hertford Heath, Hertford, with a really superb exhibit. A. K. Williams, Jeanne Baatols, Mrs. John Laing, White Maman Cochet, and Mrs. W. J. Grant were his best blooms; second, Dr. T. E. Pallett, Eden House, Earl's Colne, Essex; third, Dr. C. Lamplough, Kirkstall, Alverstone, Gurnort.

The ten exhibits in the class for six blooms, distinct, made a brave show. The first prize was won by Mr. A. C. Turner, Tatton, Elgware. His blooms were very fine. Mr. F. J. Harrison, Rosedene, Ulverston, Lancs, was placed second, and Mr. E. P. Sugden, Harefield, Wincmore Hill, N., third.

A vase of five blooms, any Rose except Tea or Noisette: Out of eight exhibits, some very good Mildred Grant secured first prize for Mr. Courtenay Page, Earlsdown, Ridgeway, Eufeld. Dr. Lamplough was second with the same variety.

No less than fourteen boxes of blooms were exhibited in the class for six blooms, distinct, for the Ben Cant Memorial Prize (a piece of plate) value five guineas. Mr. W. E. Hammond, Grovelands, Burgess Hill, was placed first with a pretty set; Ben Cant and Gustave Pigneanu were his best flowers; second, Mr. H. Williams, Willow Cottage, North Finchley.

The president's cup, value five guineas, for twelve blooms, distinct, was won by Mr. C. F. H. Leslie with a

first class lot of blooms, Mrs. Edward Mawley, Ulster, Mildred Grant, and Helen Keller were very good; second, Mr. George Myles, Hitchin, Herts; third, Mrs. Times, Bedford Road, Hitchin.

Eight boxes were set up in the class for four trebles: First, Mr. J. Wakeley, Moor Street House, Rainham, with fair blooms of White Maman Cochet, Bessie Brown, &c.; second, Mr. E. R. Smith, Muswell Hill, N.; third, Mr. G. A. Hammond, Cambrian House, Burgess Hill. Mr. E. F. Hobbs, Thorne, Worcester, was the only exhibitor in the class for twenty-four blooms, distinct, winning first prize.

Eight boxes were set up in the class for twelve blooms, distinct, open to all amateurs. In this instance Mr. E. F. Hobbs was placed first, having in good form Gustave Piganeau, Mildred Grant, Chas. Lefebvre, Her Majesty, and A. K. Williams. This exhibit won the silver cup, value £5, presented by Messrs. R. Harkness and Co.; second, Mr. A. Tate; and the third prize was secured by Mr. E. B. Lindsell.

Six blooms, distinct. There were nine competitors, leading honours falling to Mr. E. B. Lehmann; second, Mr. L. Collett, Nantwich; third, Mr. A. E. Clark, The Hurst, Mottingham, Kent.

For six blooms in not less than four varieties, open to those who have never won a first prize at the National Rose Society's shows, Mrs. Beville Portescue, Dropmore, Maidenhead, was first out of thirteen competitors (Xavier Olibo and Mrs. E. Mawley were beautiful blooms); Mr. E. F. Lambe, Sheddington House, Burgess Hill, was second; and Mr. F. J. Nightingale, Sutton, Surrey, third.

Fourteen competitors were forthcoming in the class for six blooms, distinct, open to those who have joined the society since last year's show. A piece of plate, value two guineas, presented by the Rev. J. H. Pemberton, was the first prize, and this was won by Mr. H. Robins, Ponders Margerding, Essex.

The challenge cup, value ten guineas, presented by Mr. E. R. Smith, was contested for by six exhibitors. This was for six blooms, distinct, grown within eight miles of Charing Cross. First prize was well won by Mr. W. G. Adecock, The Briars, Torrington Park, North Finchley (Hortace Vernet, Beauty of Waltham, Mildred Grant, S. M. Rodocanachi, and Captain Haywood were splendid); Miss B. H. Langton was second; and Mr. W. E. Martin, 1, Alexandra Grove, North Finchley, third.

For six new Roses, distinct, there were seven entries. The Rev. J. H. Pemberton was first; Mr. E. F. Hobbs, second; and Mr. D. L. Frieland, third.

Decoration of cut Roses for dinner table: First, Mrs. O. G. Orpen, Hillside, West Bergholt, Colchester, who made a charming decoration with a large single white Rose, its own greenery and Maidenhair Fern, quite a simple but very effective arrangement; second, Miss M. M. West, Rydal, Grange Road, Sutton, Surrey; third, Mrs. F. Brewster, 12, St. Peter, Canterbury.

Six vases of cut Roses (ladies only): First, Mrs. M. V. Charrington, The Warren, Hever, Kent. Mrs. O. G. Orpen showed the best bowl of Roses, making a delightful exhibit with the climbing damask variety called Mrs. A. O. G. Orpen (pink); second, Mrs. F. H. Cook, Biret, Colchester; third, Mrs. H. E. Molyneux, Riddlesdown Road, Purley. Miss Turner, Tatton, Edgware, was first for a vase of cut Roses, using La Fiance; second, Miss A. F. Harwood, St. Peter's Road, Colchester; third, Mrs. H. E. Molyneux. Mrs. O. G. Orpen was again first for a basket of cut Roses.

For six distinct varieties of Teas, Mr. A. Hill Gray, Beaulieu, Bath, was first with excellent blooms; second, Miss Langton, Hendon.

Mr. E. R. Smith, Muswell Hill, won first prize for five distinct varieties, five blooms of each. Mildred Grant was very good.

For nine distinct varieties, five blooms of each, the Rev. J. H. Pemberton was first, Frau Karl Druschki and A. K. Williams won two splendid vases; Miss Langton was second.

Mr. O. G. Orpen was first for six vases of garden Roses, distinct, and for six buttonhole Roses; Lady Sutton won for five wickuriana Roses; Mr. A. C. Turner, Edgware, had the best five varieties of garden Roses.

Eighteen distinct varieties: First, A. Tate, Esq., Downside, Leatherhead, with a beautiful lot; second, the Rev. J. H. Pemberton, Havering-atte-Bower, Essex.

Twelve distinct varieties: First, Miss Langton, Raymead, Hendon, with very good bunches; second, Mr. O. G. Orpen, the climbing pink damask Mrs. O. G. Orpen being very beautiful. Mr. A. C. Turner, Tatton, Edgware, was first for six distinct varieties; and Lady Sutton, Newbury, won for six vases of Sweet Briar Roses.

TEAS AND NOISSETTES (AMATEURS).

The challenge trophy for eighteen Tea and Noisette Roses was contested for by two exhibitors only. Mr. A. Hill Gray was disqualified for exhibiting seventeen varieties only, the first prize, as a consequence, being awarded to the Rev. F. R. Burnside, Great Stanhope Rectory, Rochford, Essex. In this stand a bloom of White Maman Cochet won the silver medal for the best Tea Rose exhibited by an amateur. Comtesse de Nadailac, Maman Cochet, and Boule d'Or were beautiful blooms also.

For twelve blooms, distinct, there were three competitors, the Rev. F. R. Burnside being placed first with rather small blooms; second, Mr. A. Tate. Mr. A. Hill Gray was again disqualified, in this case having eleven kinds only.

Eight trebles were represented by two entries only, Mr. A. Hill Gray being an easy first; the Rev. F. R. Burnside was placed second.

In the class for seven blooms of one variety shown in a vase, the Rev. F. R. Burnside was first out of five competitors, showing White Maman Cochet splendidly; second, Mr. O. G. Orpen; third, Mr. A. Hill Gray.

For twelve blooms, distinct, there were four entries. Mr. R. F. Hobbs was placed first; second, Mr. T. B. Gabriel; third, Mr. J. Wakeley.

In the class for five blooms of one variety, Mr. J. Wakeley was first with good White Maman Cochet, and Mr. G. A. Hammond second.

The Prince Memorial prize was contested for by six boxes of good blooms: First, Mr. W. Leggett; second, Dr. T. E. Pallett; third, Mr. W. R. Hammond.

The class for six blooms, distinct, brought six exhibits: First, the Rev. J. B. Shackle; second, Mr. R. W. Bowyer, Hertford Heath, Hertford; third, Mr. A. C. Turner.

No less than nine competed in the class for five blooms of one variety shown in a vase. Mr. H. Robins was a good first with White Maman Cochet; second, Dr. C. Lampfough; third, Mr. A. C. Turner, with Maman Cochet.

For six blooms distinct, Mr. C. C. Tunks, Lynton, The Drive, Sidcup, Kent, was a good first; second, Mr. W. L. West, Sutton, Surrey; third, Mr. John Bateman. This class was limited to growers of less than 100 plants.

In the class for four trebles there were five competitors, Dr. T. E. Pallett leading; Mr. J. Wakeley was a good second; third, Mr. A. Slaughter.

Ten boxes were staged in the class for six blooms in not less than three varieties. Mr. W. Leggett was first.

NON-COMPETITIVE.

Messrs. James Green and Nephew, 107, Queen Victoria Street, E.C., exhibited an excellent selection of their Munstead Flower Glasses, which are, perhaps, unsurpassed for the effective arrangement of flowers. They are made in various shapes and sizes, and are of simple design. It is probably owing to the latter fact that they prove so useful and effective.

Messrs. Dobbie and Co., Rothesay, and Messrs. Jones and Sons, Shrewsbury, exhibited some beautiful Sweet Peas; Messrs. Barr and Sons, Covent Garden, showed a brilliant group of hardy flowers; Mr. Howard H. Crane, Woodview Terrace, Archway Road, Highgate, N., sent some charming Violettas; Mr. J. Pinches, Crown Street, S.E., showed Acme Labels; Mr. G. H. Sage, Manor Road, Richmond, showed the Bruce Flower Displays; and Messrs. Champion, City Road, exhibited tubs for shrubs.

NEW SEEDLING ROSES.

The Barham Cup for twelve vases of new seedling Roses, or distinct sports, in not less than six varieties, raised in the British Isles, was won by Messrs. Alex. Dickson and Sons, Limited, Newtownards, County Down. Their new Roses included the two gold medal varieties (Betty and Mrs. Myles Kennedy) and several other promising ones. Among them we were especially pleased with Grace Molyneux (Tea), a charming flower, full, of pale salmon-pink colouring, fading to a paler tint in the outer petals; Mrs. Blair, a roundish flower, primrose yellow, fading to palest yellow outside; Harry Kirk, a flower of good form, borne on strong stems, apricot coloured in the centre, the outer petals lighter. All are scented.

A gold medal was awarded to each of the following Roses, both shown by Messrs. Alex. Dickson and Sons, Limited, Newtownards:

Betty.—A large Tea Rose of somewhat loose form, very vigorous, bluish, tinged with buff in the centre, and with rose outside. Fragrant.

Mrs. Myles-Kennedy.—A large and attractive flower of good form, palest bluish, tinged with a deeper shade in the centre. Fragrant.

An award of merit was given to the Rambler Mrs. F. W. Flight, shown by Messrs. William Cutbush and Son, Highgate. The flowers, which are so freely produced as to be closely packed on the shoots, are very bright rose, fading to light pink with age.

SILVER MEDAL BLOOMS—NURSERYMEN.

Hybrid Perpetual.—A. K. Williams, from Messrs. B. E. Cant and Sons, Old Rose Gardens, Colchester.

Hybrid Tea.—J. B. Clark, from Mr. Hugh Dickson, Royal Nurseries, Belfast.

Tea.—White Maman Cochet, from Messrs. Frank Cant and Co., Brailewick Nursery, Colchester.

AMATEURS.

Hybrid Perpetual.—Ulster, from Mr. E. B. Lindsell, Hitchin, Herts.

Hybrid Tea.—Bessie Brown, from Mr. A. Tate, Downside, Leatherhead.

Tea.—White Maman Cochet, from the Rev. F. R. Burnside, Great Stanhope Rectory, Rochford, Essex.

CROYDON FLOWER SHOW.

THIS was held on the 5th inst. in the grounds of Haling Park. Although the competition in some classes was not keen, especially among the Roses, on the whole there was a very good display.

ROSES.

Messrs. D. Prior and Son, Colchester, were first for forty-eight Roses, distinct; twenty-four distinct (three blooms of each); eighteen Tea or Noisette, distinct; and twelve Tea or Noisette, one variety. They had many excellent blooms in these first prize exhibits, a silver-gilt medal being awarded. These classes were poorly contested.

Mr. John R. Bux, West Wickham, was first for twenty-four Roses, distinct.

The first prize for thirty-six Roses, distinct (amateurs), was won by A. Tate, Esq., Leatherhead (gardener, Mr. Mease), with some very good blooms. The silver medal Hybrid Tea (Bessie Brown) was in this exhibit. Mrs. Haywood, Woodhatch Lodge, Reigate (gardener, Mr. Salter), was a good second.

Mrs. Haywood was first for twenty-four Roses, distinct, this stand containing a silver medal bloom of Mrs. J. Laing. Mr. W. Burdfield, Denne Gardens, Horsham, was second.

For eighteen Teas or Noisettes M. Burdfield was first, and Mrs. Haywood was again successful in the class for six Roses, distinct, three blooms of each, Mr. Burdfield being second.

Mr. Burdfield won first prize for twelve Roses, one variety, with excellent Ulrich Brunner, Mrs. Haywood being second with Caroline Testout. Mr. Burdfield was first for twelve Teas or Noisettes, distinct, and four Roses, distinct, three blooms of each; and Mr. E. M. Preston, Shirley, won first prize for six Roses, distinct.

For six Hybrid Perpetual Roses Mr. H. E. Molyneux, Brantwood, Riddlesdown Road, Purley, won first prize with very good blooms, Louis Richard (new), velvety crimson, being included. Mr. Molyneux was also first for six Tea or Noisette blooms, distinct.

Mr. E. M. Preston was first for twelve Roses, distinct, his stand containing a silver medal bloom of Frau Karl Druschki.

HARDY FLOWERS.

For twelve bunches of hardy cut flowers Mr. A. J. Peck, gardener to Miss Jackson, Duppas Hill Terrace, won first prize with a bold vaseful.

The Sweet Peas made a pretty show, the first prize for twenty-four bunches being won by Mr. Lintott, gardener to Walpole Greenwell, Esq., Mardon Park, with an excellent lot of flowers boldly staged; Mr. G. Davidson, Elm Lodge, Quadrant Road, was second. The best twelve bunches of Sweet Peas were shown by Mr. Collins, gardener to Alderman Barron, Park Hill Road. Some very good blooms were shown. Mr. Davidson was first for six bunches.

The most tastefully arranged dinner-table decoration was shown by Miss N. Robinson, Hilltop, Purley; pale mauve and pink Sweet Peas with light greenery were used. Mrs. A. Robinson, Stafford Road, Wallington, was second, using Shirley Poppies and Maidenhair Fern.

Stove and greenhouse flowers in twenty-four distinct sorts were finely shown by Mr. C. J. Salter, Woodhatch Lodge Gardens, Reigate, winning first prize.

PLANTS.

The first prize for a collection of Gloxinias was won by Mr. T. Padley, gardener to F. W. G. Radford, Esq., South Park Hill Road, with splendid plants tastefully arranged.

Mr. E. Pexted, gardener to S. Taylor, Esq., Haling Park Road, was first for a group of Begonias; and for a group of table plants Mr. C. Lane, gardener to E. H. Cules, Esq., Burntwood, Caterham, was first.

The first prize for a small group of plants was won by Mr. C. Brooks, gardener to D. C. G. Reid, Esq., Brigstock House, Thornton Heath; and Mr. A. Burdett, gardener to E. C. P. Hull, Esq., Earlswood Mount, Redhill, was first for a large group with a pretty arrangement of well-coloured plants.

FRUIT AND VEGETABLES.

For fifty Strawberries (one variety) Mr. W. Lintott won first prize; Mr. Charles Blurton, The Gardens, Kingswood Warren, Epsom, had the best Melon; and Mr. Lintott was first for a collection of six dishes with very good fruit.

The first prize for a collection of salad went to Mr. Collins, gardener to Mr. Alderman Barron.

Some excellent Grapes were shown, Mr. W. Lintott being first for Foster's Seedling, and Mr. W. Mancey, gardener to A. Benson, Esq., Upper Galton, Merstham, first for Black Hamburg.

NON-COMPETITIVE EXHIBITS.

These comprised Sweet Peas in many lovely sorts from Messrs. Jones and Sons, Shrewsbury; hardy flowers from Jackman and Son, Woking; hardy flowers and Roses from Messrs. J. Laing and Sons, Forest Hill, S.E.; group of plants and hardy flowers from John R. Bux, West Wickham; Sweet Peas from Peed and Son, West Norwood; Roses from E. Potten, Cranbrook, Kent; hardy flowers in great variety from T. S. Ware, Limited, Feltham; Palms and a group of foliage and flowering plants from Mr. T. Butcher, Wickham Road, Shirley; and hardy flowers from J. Cheal and Sons, Crawley.

CARSPHAIN SHOW.

THE picturesque district of Carsphairn in Galloway had its annual show recently, in connexion with the agricultural show. The horticultural department showed a considerable improvement over that of last year, the entries being much more numerous and the quality correspondingly better. It was necessary at such an early season to make pot plants the main feature of the show, and the exhibits of these were highly creditable. Those who had the best exhibits in these classes were Mr. W. McKnight and Mrs. Hyslop, and the most successful competitors were Miss McMillan and Mrs. Hyslop. Miss McMillan had the best table bouquet, Mr. J. Anderson coming in second; but in the class for a hand bouquet the positions were reversed. There was a good competition for Rhubarb, Mr. J. McCulloch and Mr. Daigety Kerr being first in the two classes.

SCOTTISH HORTICULTURAL ASSOCIATION.

ARRANGEMENTS were made for two exceedingly interesting excursions of the members of this association. The first, which took place on the 24th ult., was to Sweet-hope and Carberry Tower. At the former Mr. James W. Scarlett's methods of growing for market interested the members, while Lord Elphinstone's historic place at Carberry, the gardens of which are under the care of Mr. D. Kidd, one of the best Scottish gardeners, afforded much of interest. On the 29th inst. it is proposed to visit Tynninghame, the seat of the Right Hon. the Earl of Haddington, a charming place, whose gardens, as is well known, are under the care of Mr. E. P. Brotherton.

ROYAL HORTICULTURAL SOCIETY. BEAUTIFUL SHOW IN THE GROUNDS OF THE CHELSEA HOSPITAL.

A DELIGHTFUL show in delightful weather, at any rate, as far as the first day was concerned. The grounds of the Chelsea Hospital were thronged with visitors to see the beautiful exhibits from the great horticultural firms of the British Isles. Unfortunately, owing to extreme pressure on our space this week, it is impossible adequately to describe the various exhibits. It was a meeting of horticulturists. The council invited the members of the various committees to luncheon, and very pleasant are these annual gatherings. The chair was taken by Sir Trevor Lawrence, Bart., who was supported among many others by Sir George White, the Governor of Chelsea Hospital. The chairman referred in happy terms to the presence of Sir George White, who, on responding, received a tremendous ovation. The secretary, the Rev. W. Wilks, and Mr. Wright, the superintendent, were praised for their good work. We think the opening day of the show will be long remembered by those present.

ROSES.

Messrs. William Paul and Son, Welham Cross, Herts, had a delightful group. Pillars of Dorothy Perkins and Waltham Rambler were arranged among a wealth of Roses in baskets, bowls, and vases. New Roses were *Le Progrès* (H.T.), apricot buff; *The Warrior* (T.), soft red; *Grand Duc de Luxembourg* (H.T.), deepest pink in centre, outer petals bluish. Messrs. Paul and Son, Cheshunt, sent up a very bright group of Roses, the rich crimsons and reds predominating. The new Hybrid Teas *The Dandy* and *David Harum* were included.

Roses and Carnations were well and extensively shown by Hobbies, Limited, Dereham, Norfolk. The new Rambler Rose, Mrs. F. W. Flight, was finely shown by Messrs. W. Cutbush and Son, Highgate. Messrs. G. Jackson and Son, Woking, showed a charming lot of garden Roses. Rose Mrs. Neate, a flesh-coloured flower of excellent form, was shown by Messrs. J. Wood and Son, Woking. Messrs. T. S. Ware, Limited, Feltham, exhibited Roses in variety, garden and show varieties.

CARNATIONS.

Messrs. William Cutbush and Son, Highgate, N., showed a very attractive group of Carnations, Verbenas, Roses, and other plants. The Carnations, which comprised the new yellow *Malmaison Yaller Gal*, were splendid. *Malmaison* Carnations were finely shown in a large group by Lady Harmsworth, Sutton Place, Guildford (gardener, Mr. Gootley). The plants were splendidly grown. Carnations in considerable variety and Caladiums were shown by Messrs. Peed and Sons, West Norwood. From the Islet, Maidenhead, E. Wagg, Esq. (gardener, Mr. Phillips), exhibited a handsome group of *Malmaison* and other Carnations; *Cecilia* was splendid.

The Carnations from Mr. James Douglas, Edenside, Great Bookham, were splendid, one variety obtaining an award of merit; *Sea Eagle* (apricot), *Kafir* (maroon), and *Mountain* (yellow ground, fancy), were fine varieties. Messrs. T. S. Ware, Limited, Feltham, showed a pretty group of Carnations well arranged. Carnations and Roses were exhibited also by Messrs. R. H. Bath, Limited, Wisbech. Messrs. B. S. Williams and Son, Upper Holloway, N., exhibited *Malmaison* and other Carnations in considerable variety.

ORCHIDS.

A charming feature of the group of Orchids shown by Jeremiah Colman, Esq., Gator Park, Reigate (gardener, Mr. W. P. Bound), was a mossy plant, planted with *Cypripedium niveum* and various British Orchids. A background of *Nepenthes* and groups of exotic Orchids on either side added to its effectiveness. Messrs. Charlesworth and Co., Heaton, Bradford, showed some very fine Cattleyas and *Laelio-Cattleyas* in their group of Orchids. One of the very finest *Laelio-Cattleyas* this firm has flowered is *L.-C. dominiana*. The sepals and petals are rose, and the lip is rich deep crimson; a splendid flower. *Cypripedium Daisy Barclay* (C. Godfrey, leucocentrum x rothschildianum) was a good thing shown also. The Orchids from Messrs. Sander and Sons, St. Albans, contained some very beautiful *Laelio-Cattleyas* and *Cattleyas*. A feature was made with *Laelio-Cattleya Martineti* varieties. Sir Frederic Wigan, Bart., Clare Lawn, East Sheen (orchid grower, Mr. W. H. Young), showed a small but very interesting group of Orchids. Included was *Sophro-Cattleya chamberlainiana*. Messrs. Hugh Low and Co., Enfield, sent very good Cattleya gaskelliana and various other Cattleyas in their group of Orchids. Cattleya *Messie Tracy's variety*, a white variety of fine form, with lemon-yellow throat, was shown by N. C. Cookson, Esq., Wylam-on-Tyne (gardener, Mr. Chapman). A cultural commendation and an award of merit were awarded to a plant of *Bulbophyllum Lobbiai* var. *colossum*, a plant denoting splendid culture, shown by Walter Cobb, Esq., Tunbridge Wells (gardener, Mr. Chaudler).

NEW ORCHIDS.

Cattleya Mossie reinckiana var. *exelsa*.—A very beautiful variety with white sepals and petals, and rich purple, white-margined lip, marked with yellow near the throat entrance. From Messrs. Sander and Sons, F.C.C.

Cattleya gigas Our Queen.—A beautiful form with white sepals and petals and purple lip, with two pale yellow blotches at the entrance to the throat. From Messrs. Sander and Sons, St. Albans. Award of merit.

Cattleya Mossie Tracy's variety.—A beautiful flower of good form; white, except for the lemon-yellow throat. Shown by N. C. Cookson, Esq. First-class certificate.

SWEET PEAS.

Messrs. Jones and Sons, Shrewsbury, showed a delightful collection of Sweet Peas and Carnations. Sweet Peas

were shown by Messrs. John R. King and Sons, Coggeshall. Mr. Charles Breamore, Winchester, exhibited Sweet Peas in variety, some good new seedlings were included.

Sweet Peas were well shown by Messrs. Cannell and Sons, Swanley, the flowers being very large. Mr. W. J. Unwin, Histon, Cambs., showed Gladys Unwin, Evelyn Byatt, and other new sorts. Messrs. Carter and Co., High Holborn, showed a small group of Sweet Peas. Messrs. Stark and Son, Great Ryburgh, Norfolk, set up a group of some of the best sorts of Sweet Peas. A collection of many varieties, well displayed, was shown by Messrs. Gilbert and Son, Dyke, Bourne. Messrs. R. H. Bath, Limited, Wisbech, showed some good vases of Sweet Peas. Messrs. G. A. Clark, Limited, Dover, sent a small group of Sweet Peas.

STOVE AND GREENHOUSE PLANTS.

The zonal Pelargoniums from Mr. Vincent Slade, Taunton, made a brilliant display; they were shown in some splendid colours. The piny trees from Messrs. Barr and Sons, King Street, Covent Garden, made a quaint and interesting exhibit. Early flowering Gladioli and Hydrangea nivalis, an effectively variegated variety, were shown by Messrs. William Bull and Sons, King's Road, Chelsea. Tuberous Begonias, zonal Pelargoniums, Sweet Peas, and Moon Daisy (*Chrysanthemum*) Modesty were shown by Mr. H. J. Jones, Ryecroft Nursery, Lewisham, making a large and very showy display. Mr. A. F. Dutton, Iver, Bucks, showed some lovely Carnations very effectively set up in vases. Mr. H. B. May, Upper Edmonton, showed zonal Pelargoniums that made a very bright group; the *Ixoras* from Mr. H. B. May filled nearly one side of a long staging in the centre of the tent. They made a charming bank of greenery and comprised many rare and beautiful Ferns. The new hybrids of *Nicotiana Sandera* in white, rose, purple, and pink were finely shown by Messrs. Sander and Sons, St. Albans. Mr. John R. Box, West Wickham, showed a bright group of Begonias, Carnations, Caladiums, &c. A handsome group of Crotons was arranged by Mr. H. B. May, Edmonton. A large group of Ferns was exhibited by Messrs. Hill and Sons, Edmonton; it contained many good specimens. *Cibotium Schiedei* was a splendid plant. The stove and greenhouse foliage plants from Messrs. William Bull and Sons attracted much attention, and made a handsome group. Caladiums were very finely shown by Messrs. Laing and Sons, Forest Hill, S.E. The plants were finely grown and coloured.

Messrs. Carter and Co., High Holborn, exhibited a very good collection of dwarf Japanese trees. The *Gloxinias* and Begonias from Mr. A. L. Gwillim, Cambria Nursery, New Eltham, were very bright. Messrs. T. S. Ware, Limited, Feltham, showed some splendid tuberous Begonias. *Nertera depressa* was well shown by Mr. E. Anker, Addison Nursery, Napier Road, Kensington. Floral decorations were exhibited by the Grosvenor Floral Depot, 39, Chapel Street, Belgrave Square, S.W. There were brilliant Cannas and Cacti in variety from Messrs. Cannell and Sons, Swanley; very fine tuberous Begonias from Messrs. Blackmore and Langdon, Twerton, Bath; Messrs. Hugh Low and Co., Enfield, exhibited Carnations, Crotons, Smilax, and Bouvardias; *Gloxinias* and *Streptocarpus* were well shown by Messrs. Peed and Son, West Norwood; tuberous Begonias were well staged in great variety by Messrs. J. Laing and Sons, Forest Hill; Messrs. Laing also showed a group of crimson *Gloxinias*; and Messrs. W. and J. Brown, Stamford, showed Roses, Verbenas, and other flowers.

FRUIT AND VEGETABLES.

Some excellent fruits of Plums, Peaches, Nectarines, and Cherries were shown by Leopold de Rothschild, Esq., Gunnersbury House, Acton (gardener, Mr. J. Hudson). Nectarine Rivers Orange, Downton Improved, various Cherries, and Plums were all in first-rate condition. Mr. S. Mortimer, Rowledge, Farnham, Surrey, exhibited a collection of Melons and the new Cucumber *Aristocrat*. The Melons were Sutton's Hero of Lockinge, Best of All, and Superlative. Raspberry Penwill's Champion, a good new variety, very free, was shown by Mr. Penwill, Totnes. Messrs. George Bunyard and Co., Maidstone, showed fruit trees in pots, as well as dishes of fruit. The Strawberries Givon's Prolific, D. Hogg, Louis Gautier, and others; and the dishes of Apples were excellent.

Messrs. Carter and Co., High Holborn, displayed an excellent collection of garden Peas. One hundred and fifty varieties were shown from seed sown March 30. They were exhibited to show the various stages of maturity. Several plants and some splendid fruits of Strawberry Givon's Late Prolific were sent by the raiser, H. P. Sturges, Esq., Leatherhead (gardener, Mr. W. Peters). A collection of seedling Melons (of apparently delicious flavour) was sent from the Horticultural College, Swanley.

HARDY PLANTS.

The hardy plants were quite one of the features of this great show, and in almost every instance were displayed in a highly creditable manner.

A magnificent group of hardy plants was shown by Messrs. Wallace and Co., Colchester, grouped upon the ground—a combination of a rock and water garden, as naturally and tastefully disposed as was possible in such circumstances. Space precludes a lengthy enumeration, but we were much struck with the masses of Lilies, Spineas, Calochortus, Day Lilies, Iris *Kempferi*, and other plants. The Water Lily arrangement was excellent. Adjoining this group was one from Messrs. Cutbush and Sons, Highgate, and in some respects similar. Here, too, the aquatic arrangement was excellent, the material good, abundant, and well displayed. *Sarracenia* in variety were of great interest. A lovely mass of *Lilium Henry* made a display as rich and varied as was possible. Messrs.

B. S. Williams and Son, Holloway, had a group of hardy plants, in which *Alstromerias*, early *Gladioli*, and other things were seen. Mr. G. Reuther, Hardy Plant Nursery, Keston, Kent, contributed choice hardy plants and rare shrubs. Messrs. Paul and Son, Cheshunt, filled a large table with hardy flowers. The Craven Nursery, Ingleborough, Clapham, Yorks, contributed a choice arrangement of plants, in which *Campanula* G. F. Wilson, *C. pulchella*, *Saxifraga longifolia*, *Dianthus alpinus albus*, and the rare rosy-coloured *Epilobium obcordatum* were noted. Messrs. G. and A. Clark, Limited, Dover, had a fine exhibit of hardy flowers. The St. Brigid and other *Anemones* from Messrs. Reamsbottom and Co., Geashill, King's County, Ireland, were in capital form; Sir Joseph Paxton (a rosy mauve), King of Scarlets, and King of Salmon being very conspicuous and distinct. The pretty forms of *Delphinium chinensis* were largely shown. The hardy plant group from Mr. Amos Perry, Winchmore Hill, was very fine, some excellent things being staged. *Betonica spicata robusta* is a very fine and free hardy plant, and other good things included *Helenium cupreum*, *Phlox canadensis* Perry's var., *Campanula paniculata*, some beautiful Pinks, *Gaillardias*, &c.; the Lilies and *Eremuri* were quite a feast alone. The Water Lilies were a delightful lot.

Messrs. Barr and Sons, Covent Garden, also contributed hardy plants in great variety, one of the most rarely seen being *Spigelia marilandica*, with scarlet gold-tipped tubular flowers. The white *Scabiosa*, *Lilium Brownii*, some good *Phloxes*, the new white perennial *Pea*, *Dianthus Napoleon III.*, and a large collection of early *Gladioli* assisted in an excellent display. A very large exhibit of hardy flowers was that from Messrs. George Bunyard and Co., Maidstone, who arranged some excellent masses of good things. Of the more prominent we noted *Centaurea ruthenica*, *Platycodon grandiflorum*, *Iris aurea*, with the brilliant *Monarda didyma* in its front, *Galega Hartlandi* very fine, *Sidalcea Listeri*, with a lovely lot of *Lilium candidum*. The group from Mr. B. Ladhams, Shirley, Southampton, contained many fine things, notably a batch of *Gaillardias*, in which there were some exceptionally good varieties. A small group of hardy flowering plants came from Mr. N. Lewis, Bridgewater.

The group from Mr. M. Pritchard, Christchurch, Hants, was a very fine one, and contained many things of merit. *Catananche bicolor*, not often seen, *Acanthus spinosus*, *A. mollis*, *Phlox Coquelicot* (very fine), *Centaurea ruthenica*, *Liatis spicata* and a lovely lot of *Iris Kamperfi* with a fine pan of *Sedum pulchellum*, which is not often seen so good. *Phloxes* in pots, together with *Pentstemons* and *Larkspurs*, came from Mr. John Furber, Hawick, Scotland, the groups in each case being representative. The Misses Hopkins, Mere, Knutsford, had a small group of hardy things, *Primula capitata* and some of the smaller *Campanulas* being noted. Hardy plants from Messrs. George Jackson and Son, Woking, were abundant and good. *Pyrethrum*, *Stenactis*, a fine lot of *Iris Kamperfi* seedling forms, *Scabiosa*, *Larkspur*, and others were seen to advantage. A highly representative group of hardy things came from Messrs. J. Cheal and Sons, Crawley, *Phloxes*, *Gaillardias*, *Heucheras*, and the more showy subjects generally. A large array of hardy flowering things were staged by Messrs. Ware, Limited, Feltham, in which probably the finest plant was *Lathyrus latifolius* White Pearl. *Campanula Hendersoni*, *C. pelviformis*, *C. Mariesi*, and *C. persicifolia* Morheimi were very fine. A really fine exhibit was that of Water Lilies, from L. Currie, Esq., Farnborough, Hants. The flowers, with their own foliage, were arranged in large pans, and there were some eighteen kinds shown.

GROUPS OUT OF DOORS.

Messrs. Thomas Cripps, Tunbridge Wells, Kent, exhibited a large and effectively arranged group of Japanese Acers, the varied tints of these plants producing a beautiful effect. Messrs. Pulham and Son, 71, Newman Street, W., arranged a rocky, which was planted with alpine and other plants. Messrs. Liberty and Co., Regent Street, exhibited garden vases in variety filled with plants. Messrs. J. Cheal and Sons, Crawley, showed a group of ornamental shrubs. Mr. L. R. Russell, Richmond, Surrey, arranged a striking group of shrubs and Ivies. Messrs. William Wood and Son, Wood Green, exhibited garden vases. Mr. David Russell, Brentwood, Essex, showed a large group of ornamental shrubs. Messrs. Champion and Co., City Road, E.C., showed their tubs for shrubs. *Teakwood Garden Furniture* was sent by Messrs. Castle, Baltic Wharf, Westminster. Mr. G. W. Riley, Herne Hill, showed rustic summer-houses and garden furniture.

A large tent was filled with exhibits of sundries. We are unable through want of space to refer to these in detail.

Gold medals were awarded to J. Colman, Esq., for Orchids; Mr. H. B. May, for Ferns; Messrs. Wallace and Co., for herbaceous plants; Messrs. William Paul and Son, for Roses; Messrs. Charlesworth, for Orchids; and Messrs. Cutbush for herbaceous plants.

NEW PLANTS.

An award of merit was given to each of the following plants by the floral committee: *Croton edmontonense* (H. B. May), *Caladium John Hay* (J. Laing), *Thalictrum Delavayi* (R. Wallace and Co.), *Betonica spicata robusta* (A. Perry), *Begonia* Mrs. Arthur Paget (T. S. Ware), *Begonia Water Lily* (T. S. Ware), *Carnation Miss Willmott* (J. Douglas).

DUNDEE HORTICULTURAL ASSOCIATION.

THE usual monthly meeting of the Dundee Horticultural Association was held in the Technical Institute, Dundee, on the 6th ult., when there was a good attendance of members. The exhibits included seedling *Amayrilises*

from Mr. R. Cairns, which were of high quality, and for which the exhibitor was awarded a cultural certificate. The paper of the evening was by Mr. D. Halley, his subject being that of "Carnations for Exhibition." They were ably treated of from an exhibitor's aspect. Mr. Halley began by expatiating upon the value and popularity of the Carnation, and concluded by giving full cultural details, with hints as to various exhibition requirements. Mr. Halley was warmly thanked for his valuable paper.

BATH AND DISTRICT GARDENERS' ASSOCIATION.

FOLLOWING the precedent of former years the members of the Bath and District Gardeners' Mutual Improvement Association held their annual outing recently, when upwards of fifty journeyed in brakes to Clevedon. An early start was made from Queen Square, for it had been arranged that the party, before reaching Clevedon, should view the gardens at Long Ashton Court and Tyntesfield, special permission having been given by Lady Greville Smyth and Mr. Antony Gibbs respectively. Fortunately the weather was delightful, and the drive, although long, was by no means the least enjoyable part of the outing.

The party first stopped at Long Ashton Court, the beautiful residence of Lady Smyth. Here they were conducted over the spacious and well kept gardens and grounds by the head gardener, Mr. Noble. From Ashton Court the party drove to Tyntesfield, possibly, almost without exception, one of the finest gardens in Somerset. In this instance, also, the head gardener, Mr. Wilkinson, undertook the task of showing the members the chief features of interest, but, unfortunately, too much time had been spent on the first portion of the journey, and the survey of the lovely gardens, which cover about five acres, was of a very cursory nature.

SUTTON ROSE SHOW.

THE Sutton and District Rose Society held its twenty-fourth exhibition at the Public Hall on the 4th inst. The fact that a National Society's show at Regent's Park was held only two days later accounted, doubtless, for fewer outside amateurs showing. One or two nurserymen also cancelled their entries at the last moment. Another factor in the decreased number of entries was the unfavourable season. The Sutton Challenge Cup for the best forty-eight blooms was won by Messrs. B. R. Cant and Sons of Colchester. The second prize went to another firm of Colchester growers, Messrs. D. Prior and Son. In the amateur classes the Coronation Cup with the bowl for the best twelve blooms was awarded to the Rev. J. H. Pemberton of Havering, Essex; Mr. E. B. Lindell was second. His varieties included a fine Mrs. Mawley, which gained the medal for the best Rose in the amateur classes. In the local classes Mr. E. J. Holland, the society's able and enthusiastic hon. secretary, again proved what a skilful grower he is. He gained a piece of plate value £5 (presented by Messrs. R. Harkness and Co.) for the best twelve blooms, the box containing Roses which obtained for their owner the National Rose Society's silver medals for the best Hybrid Tea, Hybrid Perpetual, and Tea, the respective names of the Roses being Mildred Grant, Mrs. John Laing, and White Maman Cochet. The Ladies' Challenge Cup for the best six blooms was won by Mrs. F. J. Nightingale.

READING ROSE SHOW.

THE third annual exhibition of the Reading and District Rose Society was held in the Abbey Ruins and Forbury Gardens, Reading, on the 29th ult. The executive of the society had been thrown into some confusion by the loss of their late hon. secretary and treasurer, Mr. W. L. Walker, and Mr. J. T. Strange and Mr. W. H. Dunlop had worked hard and had secured the services of Mr. William Smith as secretary. The show was on the whole in advance, both in number of entries—which exceeded by fifty or sixty those of last year—and in quality, of anything before got together in Reading. It was a remarkable feature of this year's show that no less than three of the six valuable challenge cups were won outright, having been secured three years in succession by the same exhibitors, viz., that for forty-eight distinct blooms, presented by Mr. H. W. Dunlop, by Messrs. A. Dickson and Sons, Limited, of Newtownards, County Down; that for twenty-four distinct blooms (amateurs), given by Mrs. George William Palmer, by Mr. Conway Jones of Gloucester; and that for eighteen distinct blooms (district amateurs), given by Mrs. J. Herbert Benyon, by Mr. W. C. Romaine of The Priory, Old Windsor. While most gratifying to the exhibitors, the loss of these will be a serious matter to the society; and it is to be hoped generous supporters will replace them in plenty of time for the inclusion in next year's schedule. Many interesting stands were contributed not for competition. Mrs. Tyser of Oakfield, Mortimer, and Mr. W. Draper Strange of Padworth sent plants and cut Roses; University College, Reading (Mr. Foster) covered 40 square feet with a grand lot of Sweet Peas, Malmaison Carnations, &c.; Mr. S. J. Minden, Minster Street, Reading, staged floral devices; Messrs. J. Holder and Son, Reading, green-house plants; Messrs. Phillips and Taylor of Bracknell, Malmaison Carnations, &c.; and Messrs. Dobbie and Co. of Rotherham, a remarkable collection of Sweet Peas and Pansies.

PRIZE LIST.—OPEN TO ALL.

Forty-eight distinct single trusses: First, Messrs. A. Dickson and Sons; second, King's Acre Nurseries; hereford; third, Messrs. B. R. Cant and Sons, Colchester. Twenty-four distinct, single trusses: First, Mr. G. Prince, Longworth; second, Mr. H. Drew, Longworth; third, Mr. Rigg, Caversham.

Eighteen Teas and Noisettes, distinct, single trusses: First, Mr. G. Prince; second, Mr. H. Drew.

Twelve trusses, any one variety of H.P.: First, Messrs. A. Dickson and Sons; second, Messrs. C. Turner and Sons, Slough.

Twelve, trusses, any one variety of H.T.: First, Messrs. A. Dickson and Sons.

Twelve trusses, any one variety, Tea or Noisette; First, Messrs. C. Turner and Sons.

Eighteen distinct, three trusses of each: First, Messrs. A. Dickson and Sons; second, Messrs. C. Turner and Sons; third, King's Acre Nurseries. Eight distinct, three trusses of each: First, Mr. Prince.

Eighteen bunches garden or decorative Roses, distinct: First, Messrs. Paul and Son, Cheshunt; second, Mr. G. Prince; third, Messrs. C. Turner and Sons.

AMATEURS.

Twenty four distinct, single trusses: First, Mr. Conway Jones, Hucclecote, Gloucester (gardener, Mr. Hopton); second, Mr. Foley Hobbs, Worcester; third, Mr. J. B. Fortescue, Dropmore (Mr. Page).

Twelve distinct, single trusses: First, Mr. A. H. Gray, Newbridge, Bath (Mr. Young); second, Lady Sutton, Benham Park; third, Mr. D. H. Evans, Shooter's Hill, Pangbourne (Mr. Tugwood).

Twelve Teas or Noisettes, distinct: First, Mr. A. H. Gray; second, Mr. Foley Hobbs; third, Mr. Conway Jones.

Twelve trusses, any one variety: First, Mr. A. H. Gray; second, Mr. G. Chapman, Sonning (Mr. Sumner).

Six bunches single Roses, distinct: First, Mr. H. Dunlop, Earley (Mr. Giles).

Six distinct varieties of Roses, three blooms of each: First, Mr. A. H. Gray; second, Mr. D. H. Evans; third, Mr. Conway Jones.

Six blooms, distinct (open only to amateurs who have never won a prize at any show held by the society): First, Rev. J. B. Shackle.

Eighteen blooms, distinct, single trusses (local): First, Mr. W. C. Romaine, Old Windsor. Twelve distinct blooms (local): First, Rev. J. B. Shackle. Six trusses, any one variety (local): First, Rev. J. B. Shackle. Twelve Teas or Noisettes, distinct, single trusses (local): First, Mr. J. B. Fortescue.

CRYSTAL PALACE ROSE SHOW.

THIS was held on Saturday last, and there was a very good display. Through pressure on space we are obliged to condense our report.

The first prize for seventy-two blooms, distinct, was won by Messrs. A. Dickson and Sons, Limited, Newtownards; Messrs. B. R. Cant and Sons, Colchester, were placed second. These two exhibits were so close in quality as to cause some difference of opinion as to the judges' awards. Third, Messrs. D. Prior and Son, Colchester. There were seven competitors.

Messrs. B. R. Cant and Sons were first for forty-eight blooms, distinct; Messrs. Alex. Dickson, second; and Messrs. Frank Cant and Co., third. Mr. C. Turner, Slough, was placed first for twenty-four blooms, distinct, and Mr. Drew, Longworth, won for twelve blooms, distinct. The finest collection of garden Roses was shown by Messrs. Paul and Son, Cheshunt, and Messrs. Alex. Dickson and Sons were first for twelve vases of Roses, out of eight competitors.

For twelve vases of Teas, distinct, Messrs. B. R. Cant and Sons were first, and Messrs. Alex. Dickson won for nine vases of Hybrid Teas. Mr. Jefferies, Cirencester, won for a vase of Roses; and Mr. Mattock had the best basket of Roses. Messrs. Frank Cant and Co., Colchester, sent the best buttonhole Roses.

In the amateur classes, the Rev. J. H. Pemberton was first for thirty-six blooms, distinct; second, Mr. Conway Jones; third, Mr. R. Foley Hobbs. Mr. Bardfield, Horsham, won for eighteen blooms, distinct; Mr. A. Hill Gray for eighteen Teas and Noisettes; Mr. Mease, Leatherhead, won first prize for twelve Teas and Noisettes, for six Teas and Noisettes, and showed the best collection of garden Roses. The Rev. F. R. Burnside was first for six vases of Teas, the Rev. J. H. Pemberton winning for nine vases of Roses. Mrs. Bonster, Canterbury, showed the best basket of Roses; and Miss West, Sutton, the best vase. The best dinner table decoration in the amateur classes was arranged by Miss Harwood, Colchester.

There were non-competitive exhibits from Messrs. William Paul and Son, Waltham Cross, Roses in great variety; T. S. Ware, Limited, hardy flowers; John Peed and Sons, Carnations; J. Cheal and Sons, hardy flowers; Cannell and Sons, Gloxinias; Jackman and Son and G. Reuthe, hardy flowers; H. J. Jones, Sweet Peas; J. Laing and Son, Begonias; M. Pritchard, hardy flowers; George Bunyard and Co., Roses and hardy flowers; David Russell, Roses; and Mustard Flower Glasses from James Green and Nephew.

LATE NOTES.

Recent plant portraits.—The *Botanical Magazine* for July contains portraits of *Cuculia tuberosa*, a plant of curious structure, with insignificant green and white flowers of no beauty and merely botanical interest, native of North America. *Pernettya mucronata*, South Chili and Patagonia. Three beautiful and distinct varieties of these most ornamental-berried dwarf shrubs are here figured, bearing respectively with

great profusion pure white, deep-red, and rose-coloured fruit. *Coleus shirensis*, native of British Central Africa. This fine species of *Coleus* is allied to the handsome *C. thyrsoideus*, and is, like it, remarkable for the beauty of its flowers, which are individually of larger size and of a deep shade of purple. *Colchicum Steveni*, native of Syria and Arabia. A very pretty miniature species, with small rosy purple flowers, which appear to be produced with the foliage; unlike other members of the family. *Listrostachys Monteiræ*, native of West Tropical Africa. This is an Orchid of no beauty, and merely botanically interesting. The July number of *Revue de l'Horticulture Belge* figures the two following plants: *Rhododendron Nuttallii*, a fine double plate of the handsomest of all this beautiful family of flowering shrubs, which, however, is rather shy blooming and difficult to manage, save when planted out in large houses. *Debregeasia velutina*, one of the East Indian *Urticaceæ*, of little beauty, and merely botanical interest.—W. E. GEMBLETON.

Proposed railway to Clydesdale fruit district.—The Caledonian Railway Company's directors have decided not to proceed with the proposal to construct a line of railway to open up the fruit districts of Lanarkshire, mentioned in THE GARDEN some time ago. This decision has been come to on account mainly of the great cost which would be entailed by the heavy gradients. The withdrawal of the project has caused great disappointment among the residents in the district the railway would have served.

Mr. Henry Eckford.—It is a great pleasure to know that the Victoria Medal of Honour has been awarded to the famous Sweet Pea raiser Mr. Henry Eckford of Wem, Salop. The honour is richly deserved.

PRIZES FOR GARDENERS. JULY.

OPEN TO ALL.

GARDENING IN TOWN AND SUBURB.

A First Prize of FOUR GUINEAS,
A Second Prize of TWO GUINEAS,
A Third Prize of ONE GUINEA,
And a Fourth Prize of HALF-A-GUINEA
are offered for the best answers to the following questions.

I.—Mention the names of the twelve Roses which grow and flower most freely in the suburbs of large towns.

II.—Describe the way you would plant a shady border in a town garden to get the prettiest spring and early summer effects.

III.—Name the class of tree or shrub that cannot be grown with success near large towns.

IV.—What shrubs would you select for planting in such gardens? Give the names of the best six.

V.—Why is it that plants with rough leaves are not, as a rule, a success near large towns?

VI.—Name twenty different hardy plants that are quite happy in town gardens, almost as much so as in the country.

VII.—Name the six foliage plants that succeed best in the rooms of a suburban house.

VIII.—Name the best six climbing plants for a town garden.

Answers to these questions, written on one side of the paper only, must be addressed to The Editor of THE GARDEN, 20, Tavistock Street, Covent Garden, London, and the envelopes marked "Competition." They must reach here not later than the 31st inst. The Editor cannot undertake to return the MSS. of unsuccessful contributors.

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GROUPING ALPINE FLOWERS.

THE usual plan of arranging these is the cause of more deaths and failures in their cultivation than anything else that hinders their successful culture. The rule is to place them in mixed fashion pretty closely together, and the usual result is, that the strong kinds overrun the dwarf and slow-growing species, which in consequence soon perish. It is common to see the Wood Strawberry, the Periwinkle, the Tormentil, or still coarser plants, take possession of rock gardens originally planted with choice flowers. But long before that fate overtakes the Alpine garden, another evil results from the common system, and that is the absence of good or natural effect. Dotting each favourite plant all over the place is the way to secure monotony and poverty of effect, as well as the eventual loss of the best plants. In this fashion nothing is gained by having an extensive or varied rock garden, because the same effects are repeated in all its parts, and the result is as unnatural as it is unfortunate for the plants. One never sees anything like the mixture alluded to in the Alpine pastures or on the rocks. Often a carpet of one plant charms us there; sometimes the carpet is inlaid with one or two other plants, but generally each bank or mantle of turf or ledge of rock has a special character resulting from the individuality of the one or more plants that adorn it. The opposite effect is seen in the garden in which the general mixture system gives the same aspect to the whole concern. There is no reason why this should continue. Improvement in artistic effect, in cultivation, in the preservation of the rarest species, as well as the better known kinds, and in interest to the observer would result from the simpler plan of grouping and massing Alpine flowers. This may be done with one kind, or with kinds allied in size or character. For example, if we have fifty plants of the common *Gentianella* (*Gentiana acaulis*), it is better to make one or more large groups or carpets of them than to scatter them all over the rock garden one by one. Better still would this practice be with the Vernal Gentian, which, being a slower grower and dwarfer, is more liable to be exterminated by rapid-growing neighbours. Weeds and

"interlopers" are seen at a glance in such groups or carpets, and may be promptly dealt with. Good preparation as to soil, stones, position, &c., is more likely to be secured in the case of selecting one or two spots for a favourite plant, than in planting it in a score or two different places. Those who know and love such plants may easily acquire the habit of forming groups and masses in a free and natural manner, avoiding every trace of formality, and as a rule only placing one or two kinds on a bank or ledge. In this way, if strong or coarse kinds be placed in the rock garden, the limits of their domain will be more clearly defined than is commonly the case.

Often, in consequence of not adopting the natural grouping or massing system, people are tempted to plant Ivies, Periwinkle, Clematis, and like plants, so as to hide the bareness of the ground; but bare ground may be easily covered by following the right system with true Alpine flowers. Instead of planting one tuft, the way to cover and at the same time beautify the ground is to divide the plant or tuft into as many parts as may be, and thus make the rock garden a nursery in a sense as well as a home for the flowers. Some scarce plants will not bear this division, but the majority will. The young roots emitted by the divided portions do much more efficient work than the old and broken ones of the single plant or tuft with which we begin. The chances of success are greater, for if we divide a healthy plant or tuft of *Draba aizoides*, as is often planted by itself, we shall have no difficulty in getting a dozen or more young plants, which, carefully "set" among broken stones even on level borders, will thrive if coarse plants be kept away, though severe winters, excessive wet, or slugs, will sometimes destroy a few plants which we do not miss in our carpet or group. Moreover, the bloom is in such cases fairly seen, and its character impressed upon all who see it, whereas a few blooms hidden among numerous other plants may even escape the notice of those who planted them. Speaking of making the rock garden a nursery bed it may be added that no rock garden can be successfully and permanently adorned without nursery or reserve beds to fill blanks; it is, however, quite possible by adopting the dividing and grouping system to do without special nursery beds or with fewer of them.

One of the best reasons for wide and natural groups of Alpine plants is that they secure distinct aspects of vegetation, as each portion of the garden may be thus easily made to possess a character of its own.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

- July 25.—Tibshelf Rose Show.
- July 26.—Southampton and Cardiff (two days) Flower Shows.
- August 1.—Royal Horticultural Society's Meeting.
- August 16.—Bishop's Stortford Flower Show.
- August 19.—Sheffield Rose Show.

List of plants from Central and Western China.—Messrs. James Veitch and Sons, Limited, Chelsea, have sent a most interesting list of the plants introduced recently by them from Central and Western China. It is freely illustrated, and the plants are well described. The majority of these novelties are quite hardy in this country.

International Show at Edinburgh.—The council of the Royal Caledonian Horticultural Society met on the 12th inst., when arrangements were further matured for the above event, which takes place on September 13 to 15. Already a considerable number of applications for space for non-competitive exhibits have been received. The last date for receiving these is the 27th inst. On the representation of prospective exhibitors the council have modified the rule as to staging exhibits by 11 p.m., and have now resolved that, with the exception of a few classes of exhibits which are specially mentioned in the schedule, all exhibits must be in the Waverley Market by midnight on September 12, and all staging must be completed by 3 a.m.

Kent and Sussex Daffodil and Spring Flower Society.—The preliminary meeting of the above will be held at the Saracen's Head Hotel, Ashford (Kent), on Tuesday, the 25th inst., at 11.45 a.m. Viscount Medway has kindly consented to take the chair. It is to be hoped that there will be a large attendance. Mr. F. Herbert Chapman, 101, High Street, Rye, is the hon. secretary, *pro tem*.

Scottish fruit trade.—The continued paucity of the rainfall is having a very injurious effect upon the fruit-growing industry in Scotland, and the Blairgowrie district is feeling it considerably. Any rainfall has been comparatively slight, and a greater fall is necessary to soak the ground thoroughly. There is some difficulty in marketing preserving Strawberries, and buyers hold off, owing, it is said, to the stocks of last year's preserves still on hand. The trade in punnets and baskets is much brighter, and were the railway concessions still greater a better trade could be done. The prices offered for Raspberries are not in accordance with the expectations of sellers, who are unwilling to take the prices offered.

Ivy Mrs. Pollock.—I have never before seen this golden variegated Ivy in such good form. I think it must have been the dry atmosphere and sunshine in May that put colour into the foliage. Anyway, the leaves, instead of being a rather sickly yellow tint that generally characterises the golden variegated forms of this climber, were richly coloured, and distinctly ornamental. Several years ago I planted one each of Mrs. Pollock, Silver Queen, and atropurpurea, side by side, simply training them, nursery fashion, to stakes. The contrast and distinctive colouring of these three kinds are very pleasing, and I can strongly recommend them for a low wall or to ramble over tree stumps, as they are moderate growers. These small-leaved Ivies are, I find, much benefited by an annual manuring of some kind; if starved they make poor growth, and the leaves do not take on the tint that renders them so attractive when in the enjoyment of perfect health and vigour.—
J. CORNHILL.

Sweet Peas at Mark's Tey.

If proof were needed to demonstrate the increasing interest taken in the culture of the Sweet Peas, a visit to the new seed grounds of Messrs. Dobbie and Co. at Mark's Tey, Essex, would supply it. Mark's Tey is within a few miles of Colchester. Within the comparatively short period that Messrs. Dobbie and Co. have been in possession of their new quarters they have accomplished a great deal. What was formerly a farm of some sixty acres is now devoted to seed raising and seed saving. On the occasion of a recent visit Sweet Peas received the larger share of our attention. Some sixty varieties are planted in

long rows. The plants were raised in pots under glass in the spring and planted out in April in well-prepared soil, in which was incorporated quite freely good lasting manure. Two seedling Peas were planted, 2 feet apart in the rows, and

undoubtedly a very fine acquisition, being quite distinct. Each flower has a bold standard, and invariably three flowers on each stem. The new Black Michael does not appear to be an advance on other maroon - coloured Sweet Peas. Annie Stark is a sport from Dorothy Eckford, but the quality is poor. The new David R. Williamson is not distinct enough, although a good flower. Dora Breadmore has a tendency to come with a double standard, but when in good form is a large creamy buff flower of good quality. Florence Molyneux (Dobbie) is an excellent garden variety. Countess Spencer (true) is a beautiful Sweet Pea, and well deserves all the good things said in its favour. It has a wavy pale blush pink standard, with a distinct Picotee edging of a darker shade. Gladys Unwin is another good pink flower. A new variety is Miss H. C. Philbrick; this is a good thing which lacks size, but its pale blue colour is quite novel. Lady Aberdare is pleasing, and is much disposed to sport—a common failing with many Sweet Peas. Romolo Piazzani is a good flower, rich violet-blue. A new variety bearing many flowers on each stem is Mrs. J. Inman, with orange - red standards, rose wings, and large, bold flowers. Janet Scott (pink) is distinct, pleasing, and very free. Orange Countess is a fixed sport from Countess Spencer, and is one of the very best of this interesting family of sports. In an adjoining field, fully three acres in extent, were some sixty stock varieties. The rows were each 200 yards long, and, if put end to end, would form a continuous run of more than four miles. All those worthy of culture were to be seen here.—D. B. C.



HER GRACE THE DUCHESS OF WESTMINSTER.

(A new vice-president of the Gardeners' Royal Benevolent Institution.)

Rose Mme. Georges Bruant.—This is, as stated on page 9, a delightful garden Rose, but I must object to it being classed as a form of *Rosa rugosa*. This has handsome leafage, altogether wanting in the above-named variety, and the same may be said of the fruits. Again, that delightful red Rose Mrs. Anthony Waterer, said to be the result of a cross between General Jacqueminot and *R. rugosa* is classed with the last named, but the leafage, spines, and fruit bear no resemblance thereto. Of the true *rugosa*s may be mentioned the single-flowered rose-coloured kind regarded as the type, of which some forms are very richly tinted; the pure white variety, quite a jewel; Blanc double de Combert, now largely grown, its semi-double exceedingly pure white blossoms being much admired, and in leafage it is, I think, the most handsome of all; Souvenir de Philemon Cochet, whose flowers are more double than those of the preceding, while in addition they have sometimes a suspicion of blush; and Belle Poitevine, soft rose, semi-double. These forms of *Rosa rugosa*—that is to say, the kinds with the characteristic foliage of this Rose—thrive in towns much better than any others; indeed, in a selection of shrubs for London *R. rugosa* must have a place, but the same cannot be said of Mme. Georges Bruant and Mrs. Anthony Waterer, beautiful though they be when in a thriving state. Where the conditions are none too favourable, I find that mildew is sometimes troubles me in the case of Mme. Georges Bruant.—H. P.

Proposed new plant house at Dundee.—The Parks Committee of the Dundee Town Council have had recently before them a proposal to erect in the Eastern Cemetery a new plant house for the purpose of raising flowers for the adornment of the graves in the cemetery and for other purposes. The proposal met with a favourable reception, and, as it is of an unambitious character, and not at all a costly one, it may be carried out. The house is estimated to cost £300, and it is proposed to sell plants and flowers to the owners of the cemetery plots in order to meet the necessary expenses.

Tomato Toogood's Best of All.—For anyone requiring a Tomato which is a good cropper, whose fruits do not split, one, in fact, that is in every way suitable for main crop or for market culture, the above is all that can be desired. It is of quite distinct habit and free setting. The fruits are of medium size, smooth, and highly coloured. It will keep in good condition over a long period after it is ripe, which adds considerably to its value. It was, I believe, sent out by Messrs. Toogood and Sons of Southampton. —E HARRISS.

Dumfriesshire and Galloway Horticultural Society.—The directors have reluctantly found it necessary, for financial reasons, not to hold a summer show this year. The winter one in November will, however, be held as usual, but additional classes will be added so as to enlarge the show. The efforts of the directors to restore the financial balance are meeting with so much success that it is expected

that the summer show will again be held next year. The prize-money at the winter show will, as usual, be guaranteed by the directors. Mr R. G. Mann, *Courier and Herald* office, Dumfries, the secretary, will supply schedules of the winter show, which is to be held on November 9. At this show the Dumfries Corporation Challenge Cup, tenable for one year, will be offered in the gardeners' classes for cut *Chrysanthemum* blooms.

Aster sub-cæruleus.—Messrs. R. Wallace and Co., Kilnfield Gardens, Colchester, write: "With reference to your illustration in a recent issue of *Aster sub-cæruleus* and note on same, we should like to say that we showed this

consented to judge the flowers staged at this meeting. The autumn meeting will be held on Friday, September 21, when Mr. H. E. Molyneux (hon. treasurer of the National Rose Society) will read a paper on "Roses for Suburban Gardens."

IN THE CAUSE OF CHARITY

THE GARDENERS' ROYAL BENEVOLENT INSTITUTION.

THIS great horticultural charity held its annual dinner recently at the Hotel Metropole. A dinner is essential to bring before the horticultural and general public the claims of those who fall by the wayside, and must depend upon the charitable for a calm ending to a life of toil, and sometimes keen struggle for existence. We are never weary of urging the claims of this institution upon the charitable, and large—though by no means too large—sums raised for distressed gardeners are the outcome of the eloquent pleading of the chairman and others at these annual festivals.

The gathering in June last will ever remain in the memory of those who were present. The chair was taken by his Grace the Duke of Westminster. Many distinguished men in various positions of life have occupied the same place, but few have done so with greater charm and earnestness.

The Duke, it will be remembered, gave £200 to the funds, has become an annual subscriber of 10 guineas, and has consented to be a vice-president. But, more than this, the Duke has shown his great personal interest in the institution by bringing its good work before his family. The Duchess of Westminster subscribed 50 guineas, and has also accepted the office of vice-president. We give with pleasure the portraits of the Duke and Duchess and their eldest child.

It may be interesting to recall that the present Duke's grandfather was chairman for twenty-one years of the Gardeners' Royal Benevolent Institution, and his grandson is showing a practical interest in horticulture and farming by his remarkable work in South Africa. There he has purchased 20,000 acres to found a colony for the men of Cheshire who are willing to emigrate to

South Africa and engage in fruit-growing and general farming. It is a noble and philanthropic conception.

The world is made happier and brighter by the men who do good deeds such as this, and we hope that the project will be successfully carried through. Such an effort to keep men on the land, and to teach them a healthy and profitable industry, is most praiseworthy.



HIS GRACE THE DUKE OF WESTMINSTER.

(Who presided at the recent dinner of the Gardeners' Royal Benevolent Institution.)

plant in fine condition before the Royal Botanic Society on the 7th ult., when it received a first-class certificate."

Bowdon Amateur Horticultural Club.—The summer meeting will be held by kind permission on Friday evening, the 21st inst., 1905, in the Lecture Hall adjoining the Downs Congregational Church (entrance in Bowdon Road), doors open at 8 o'clock. A paper will be read at 8.45 p.m. on "Lilies," by Mr. R. W. Wallace, Colchester. Mr. Wallace has kindly

PRIZES FOR GARDENERS.

AWARDS IN THE JUNE COMPETITION.

PEAS AND POTATOES.

A LARGE number of gardeners competed for the prizes offered for the best answers on the above subject. They include writers from most of the counties in England, and several from Ireland, Scotland, and Wales. Among so many papers contributed, a few, of course, show an elementary knowledge, but the majority evidence an intimate and practical knowledge of the subject. The first prize essay reveals the best information on the successful culture of these two most important garden crops. Two of the writers omitted to give their names and addresses, and one dealt with Potatoes only. The prizes are awarded as follows:

First prize, Mr. John Carter Wadd, The Gardener's Lodge, Knighton Fields, Leicester.

Second prize, Mr. Edgar J. Kirtland, The Hermitage Gardens, Walton-on-Hill, Epsom.

Third prize, Mr. M. Millard, Hartley Wintney, Winchester.

Fourth prize, Mr. L. S. Bidwell, Royston, Hertfordshire.

The following deserve commendation: H. Prosser, Knoll Gardens, Wimborne; H. Forder, Ruthin Castle Gardens, North Wales; Charles Blair, Preston House Gardens, Linlithgow, N.B.; T. Hayton, Kilney Court Gardens, Worthington, Wigan; Thomas Davies, The Gardens, Dunstall Hall, Stafford; A. Salter, Myscote Park Gardens, Chatham, Kent. Some writers lost points in not giving dates, or approximate ones, for sowing and planting, an important item where amateurs and learners are concerned.

The first prize essayist evidently understands the subject thoroughly. The paper is full of practical and sound instruction. The only fault we have to find with it is that the writer has included Evergood Potato in his mid-season varieties. This should be deleted and a better variety substituted. Its quality is universally condemned. The variety Factor should also be included in the late six varieties. It has been proved to be one of the very best late Potatoes.

THE FIRST PRIZE ESSAY.

I.—Give lists for selection from of six early Peas, arranged in order of earliness, six mid-season Peas, and six late Peas, to cover a long season; also give heights of the varieties and suitable distances apart for sowing.

Early varieties: For sowing in November and December Improved William the First stands unrivalled. It is one of the hardiest Peas in cultivation, grows between 3 feet and 4 feet in height, and should be spaced at 4 feet from row to row, the rows to run north and south. Sangster's No. 1 Improved, for sowing in the early part of January, is a good variety, and "weathers" well. It grows from 2½ feet to 3 feet high, and gives good results at 3 feet between the rows. Early Sunrise, for sowing in the middle or last week in January, should come next. It is very robust and hardy. Haulm as a rule not above 2½ feet high, more often less. Should be given 2½ feet space on strong ground, and 3 feet on a light, deep, friable loam. Chelsea Gem, for sowing early in February, is a prolific variety. It grows from 12 inches to 18 inches in height, and may be sown in drills 2 feet apart. Gradus is one of the largest early Peas cultivated. Should be sown about the middle of February in drills 3 feet apart. Is very robust, and attains the height of 3 feet. Sutton's Early Giant, for the last sowing, at the end of February, is probably the best early Pea in cultivation. The haulm is fleshy, and the pods are very large. It attains a height of 3 feet to 4 feet, and should be planted at 4 feet from row to row if possible, and not less than 3 feet asunder, the rows to run north and south.

Mid-season varieties: Daisy is a Pea that thrives

well in most soils. Very robust in habit. Attains to 2 feet in height. Should be given 2½ feet space. Sutton's Dwarf Defiance is a Pea of good quality and productiveness. Height about 2½ feet; distance apart to plant, 3½ feet. Champion of England, an old Pea, but the sweetest eating Pea in cultivation. Height, 5 feet. Should be given 6 feet from row to row. Yorkshire Hero is a very fine cropper, and has excellent table qualities. Height, 3½ feet. Should be given 4½ feet from row to row. Duke of York, for sowing early in April, comes next in this class. A very sturdy grower, stands early drought well, grows 3½ feet high, and requires 4½ feet space. Sutton's Prize Winner should complete the mid-season section. It is a good grower in most soils. Height, 3 feet; space, 4½ feet. *Main or late varieties:* Duke of Albany is a very large Pea, good cropper, stands drought well. It attains a height of 5 feet, and requires 6 feet space between the rows. Glory of Devon is a Pea that should be grown in all large gardens. It is an extraordinary cropper, very sturdy, and grows about 4 feet high; distance apart to plant, 5 feet. Veitch's variety for best results. Sutton's Exhibition Marrowfat, for sowing the end of May, is indispensable. Pods are large and well filled. Height, 4 feet; space required, 4½ feet between rows. Ne Plus Ultra, Selected.—Provided the selected strain can be obtained, this Pea will pay for sowing the second week in June. It is more robust than the old Ne Plus Ultra, only reaches about 5 feet in height; distance apart required, 6 feet. The Gladstone.—This variety, for sowing the last week in June, is a reliable cropper. Excellent for dry seasons. Attains to 3½ feet in height, and requires 4½ feet space. The Autocrat is a Pea of well-known merit, and will prove itself as such if planted as late as July 10. Height, 4 feet; space, 4½ feet.

II.—Give briefly details as to the best methods of soil preparation and manuring to secure a succession of Peas during hot weather.

To grow Peas during hot weather we should aim first at providing the most suitable means by which the plants can take up the different properties from the soil required to bring them to perfection. This is best secured by a system of deep cultivation. On heavy soils I would suggest double digging, leaving the bottom spit underneath, and placing well-rotted manure between the top and bottom spits. On soils of a light sandy nature dig out a trench to the depth of 1 foot, work in some good short manure in the bottom spit as for Celery, and then place a thin layer of well-rotted manure in next, covering this with 3 inches of the soil removed from trench, then sow the Peas on top of this, and cover with another 3 inches of soil. After the plants are up a mulching of short litter in very dry, hot weather is helpful, also a top-dressing of superphosphate, with frequent waterings from the farm or stable yard.

III.—Furnish briefly practical information as to the sowing and raising of Peas under glass for planting out on a warm border to secure early gatherings, also name a few suitable dwarf varieties.

The earliest Peas picked from outside are those which are sown in the middle of October in pots plunged to their rims in ashes. These must be kept out until December is well on; then they should be placed in a frame with a very mild hot-bed underneath. Great care is required in watering and admitting air; these are ruled by the weather prevailing. The plants need to be kept steadily growing until towards the end of February, when they should be gradually hardened off and planted on a warm border. They will still require protection against sharp frosts and cutting winds, but, if the weather is favourable at that time, it is quite possible to commence picking before April is out. Harbinger is the most suitable Pea for this method. Another good method to secure early pickings is to place strips of turf 4 inches wide and the length of the frame. Place these on a mild hot-bed, grass

downwards. Sow the Peas along the centre of each turf, and cover with fine earth. Keep close until germination is well advanced, and then admit air according to the weather. Grow steadily and procure a short, sturdy plant, gradually harden off, and plant out the last week in March. Operations should commence the third week in January for the above method. Again sow in pots in February and grow steadily, and plant out at 12 inches apart with trowel as soon as hard enough and weather favourable. In place of pots for the above method, V-shaped troughs of any length suitable may be used. These should be made of 6-inch by three-quarter inch floor-boards, the ends nailed firmly to one board, and the other board only nailed on loosely or held on by two bands of copper wire, one near each end. The loose board is taken off and the plants put gently into a trench already prepared as to shape and depth. In all cases of planting out Peas they should be placed about 1 inch below the ground level, and protection ought to be provided, or success cannot be looked for. Little Marvel (Sutton's), Chelsea Gem, English Wonder, The Sherwood, and William Hurst are all suitable varieties.

IV.—Describe the culture of Peas to be grown in pots, boxes, or on a house floor for gathering early under glass.

Pea culture under glass in pots is a rather difficult operation, as they require to be grown steadily so as to ensure dwarf sturdy plants. Too much or too little water is fatal to them. Great care and judgment are necessary as to watering at the right time. Ventilation, too, must be given in plenty at all favourable times, but the plants must never be exposed to cold draughts or they will never set their blooms. Seven-inch pots are suitable, in which place a rich compost over a good drainage, the latter being an important point. Sow about eight seeds in each pot in October, and place in a cool house or frame. When the plants begin to grow, stake them round with an old Birch broom or two or three stakes to prevent their falling and breaking. Give liquid manure only when the blooms have set and the pods are ready to swell. Larger pots than the above may be used, but if they are over 9 inches in diameter the Peas should be sown round the sides. Boxes for Peas should be 3 inches wide, 8 inches deep, and 2 feet long. Put plenty of rubble in the bottom to secure drainage. The same cultural directions apply to this method as to those in pots. If grown on the floor of a house a bed must either be made specially for them or the border existing enriched. A cool Peach house facing south or west, with the roof reaching almost to the ground, is the most suitable structure in which to grow them. They should be sown in drills 18 inches apart and 2 inches deep. When high enough, earth up slightly, and stake with short bushy boughs. Water only when absolutely necessary, and that after a top-dressing of superphosphate. Air according to weather. Sow in November. Should the slightest sign of mildew appear, dust freely with sulphur. Peas may be sown on a warm border in November, and when well up they may be covered with portable frames, giving as much air as possible, but keeping them free from cold cutting winds and heavy rains. This method will sometimes hasten the crop by three weeks.

V.—Name eighteen varieties of Potatoes for selection from for garden culture, classifying them as early, mid-season, and late; also mention general character of growth, and proper distances apart of the rows.

Early varieties: Ringleader.—For the earliest crop; a white-fleshed kidney; haulm, medium height and sturdy. Space out 2 feet from row to row. Duke of York.—A capital smooth, oval, early dwarf variety; heavy cropper on most soils; haulm, short and very hardy. Space out at 20 inches. Sutton's Ashleaf.—A good Potato for early work; produces heavy crops; haulm, very short as compared with the old early Ashleaf. Space required, 20 inches between rows. Ninety-

fold.—Another of Sutton's productions, and highly prized by all who have used it; haulm, dwarf, stands up well. Space out at 2 feet. Sir John Llewelyn.—A Potato becoming very popular as a first early; it is a white-fleshed kidney, and grows large; the haulm is dwarf, and stands up well if the ground is in good tilth; 27 inches is a fair distance to space out this variety. Royal Kidney.—Known in some districts as the Royal Ashleaf Kidney. Classified by some as a second early, I prefer to put it in its present position. It is supposed to be the hardiest variety in cultivation; a good cropper. Medium height, and requires 2 feet space between rows. *Mid-season varieties*: Snowdrop.—A good kidney Potato; can be relied upon in most seasons; haulm, erect and robust. Space required 2½ feet. Evergood.—For midseason work this Potato ought to have a place. Enormous cropper, stands against disease well. Free grower, requiring 2½ feet between rows. Sutton's Epicure.—A grand round Potato, highly thought of by Scotch growers. The flesh is white, good eating, tubers good shape. Haulm medium to strong. Space between rows 2½ feet. British Queen.—Splendid white Kidney. Cooks well when dug from any ground; a heavy cropper. Haulm strong. Space between rows 2½ feet. Beauty of Hebron.—This good old pink round is still worthy of notice. Excellent in a dry season. Haulm medium. Space 2½ feet. Sutton's Reading Russet.—A flattish round, lemon-white flesh. A good cropper and keeper. Haulm fairly strong. Space required 2½ feet. *Late varieties*: Up-to-Date.—A heavy cropper, oval-shaped tubers. Very strong growing and requires 3 feet between rows. King Edward VII.—A heavy cropping Kidney Potato with white flesh, eyes pink. A good disease resister, first-rate table qualities. Haulm medium to strong. Space between rows 2½ feet. Sutton's Abundance.—A flattish round Potato of good appearance and table qualities. Haulm medium. Space between rows 2½ feet. Kerr's Duchess of Cornwall.—A splendid cropping round Potato. Very healthy grower, disease resister of the first water. Haulm medium. Space between rows 2½ feet. The Sirdar.—A beautiful white-skinned, oval Potato. Crops very heavy, very free from disease. Haulm fairly free growing. Space between rows 2½ feet. Fidler's Record.—An excellent white Kidney; a very heavy cropper of good flavour. Haulm medium. Space between rows 2½ feet.

VI.—Describe general requirements of Potatoes as to soil preparation, manuring, and times for planting.

Potatoes need ground broken up well and well manured. For early varieties I prefer the ground to be dug in the autumn, and if light the manure should be well decayed. For heavy soil I believe the best results are obtained if stable manure is used which has rather more than half decayed. This helps to keep open the ground, and the tubers, in consequence, lift easier and cleaner. Seven pounds of superphosphate and half that quantity of kainit per square rod make a useful top-dressing and should be hoed in after the Potatoes are above ground. On light ground the Potatoes may be dibbled in, but on heavy soils it is always best to trench them in and lightly fork the top as you go along. All outside crops are best earthed up. Planting, under the most exceptional conditions as regards weather and aspect, should not begin before February 20, and it should then be carried along by weekly stages, taking each sort I have given in rotation. All should be under ground by May 10. My reason for extending it thus far is because midland and northern growers so often have their crops sadly damaged by late frosts.

VII.—Give briefly particulars as to the culture of Potatoes in pots, boxes, or in frames, under glass, and name a few suitable varieties for such purpose.

Potatoes grown in pots or boxes require special care as to watering, &c.; in fact, forced Potatoes in any circumstances must never be neglected. The most suitable sized pots to use are those of 16 inches or 18 inches diameter. These should

be crocked sufficiently to secure good drainage, and then about three-fourths filled with prepared soil, sandy loam (three parts), leaf-mould (one part), and spent Mushroom bed (one part), well incorporated together. Plunge three or four sets in each pot to a depth of 4 inches, and stand the pots in a cool house or frame. When through top-dress with some of the same compost. Admit air as occasion occurs, and look out for pests and damping of the haulm in the dead of winter, generally accelerated if the haulm gets bruised or broken by shifting pots and falling about. Boxes should be 1 foot wide, 1 foot deep, and 2 feet long. These will take four or five tubers. The same conditions as for pots apply here also. Frames are undoubtedly the best means employed in the forcing of the Potato. A mild hot-bed, protection from frost, and strict attention to watering, airing, &c., are all that are required. Give about 8 inches of soil to grow in and plant in rows, the rows to be 1½ feet apart, and the sets 9 inches in the rows. Any of the three methods mentioned above will be found suitable for operations commencing as early as September. Under glass.—If this term refers to houses, either a late vinery or late Peach house will be found suitable for the purpose. Plant on the border in rows 1½ feet apart, and 1 foot apart in the rows. They will not require earthing up. Give air freely, but keep out frost, and water only if absolutely necessary. November or December will be soon enough (for this method of forcing) to begin planting. I recommend the following



GENTIANA VERNA.

varieties as the most suitable for forcing: Ring-leader, Sutton's Ashleaf, Sharpe's Victor, and Early Puritan or Duke of York.

VIII.—Briefly describe the nature of the well-known Potato disease, how it may be counteracted, and what are the best agents for such purpose.

Most gardeners are only too well acquainted with the terrible Potato disease known as *Phytophthora infestans*. It is a fungus which attacks the foliage. The mycelial threads consume the protoplasm of the cells, destroying the leaf green (chlorophyll). Passing through the foliage and down the stem, they eventually reach the tuber, consuming the food it contains, the outcome of which is that the tuber soon begins to rot, and nothing will stop it. Wet seasons accelerate it. Prevention is better than cure, and as no cure is supposed to have been found, we must take preventive measures instead. First, I believe in a frequent change of seed, obtained from sources which are known to be nearly disease-proof or where the greatest care is exercised in the selection of the seed tubers. Secondly, in lifting the crop (whether it shows signs of disease or not) to pick up every Potato if only as large as a Pea, thoroughly forking over the ground to get every one. Thirdly, burning every scrap of haulm and any tubers that have been discarded which are not to be used for cattle or the like. Fourthly, to practise the rotation of crops as much as possible, so that Potatoes only come on the same ground once in three

years. I may here say that, apart from manuring the ground, an occasional dressing of quick-lime would also help to prevent the disease by sweetening the ground, especially so if it is of a heavy nature. Lastly, as soon as the disease attacks the crops, it should be sprayed with Bordeaux Mixture. This should be made up as follows: 10lb. of sulphate of copper and 5lb. of lime to 50 gallons of water. If the crop is sprayed two or three times it is quite possible that the disease will be checked, the plants will continue growing and so mature the tubers, and a good sound crop will be lifted at the proper season.

JOHN CARTER WADD.

Gardener's Lodge, Knighton Fields, Leicester.

NOTES ON HARDY PLANTS.

GENTIANA VERNA.

IN many rock gardens this beautiful Gentian is but short-lived. Sometimes it flowers the first year after planting, and then it dwindles away and dies. *Gentiana verna*, to do well, requires a well-drained, gritty soil, and plenty of moisture. It succeeds admirably in the full sun if kept moist, but does not mind a more shady position, or even the north side of a rock; neither does it object to rough, stormy weather. Moisture and gritty soil are, however, indispensable. Plenty of crushed stones and an abundant supply of gritty sand should be mixed with the soil, which in planting should be pressed very firmly around the plant, and receive an additional layer of grit on the top.

So many people fail with this plant that I was delighted to find on the exposed North Devon coast, namely, in the natural rock garden of Mr. A. L. Ford at Gwynallt, Lynmouth, a specimen 1 foot across, and bearing between 350 and 400 flowers. The sight of this was so charming that I begged a photograph of the plant, which is reproduced in the accompanying illustration. Mr. Ford also very kindly sent me some additional particulars of this plant, and I think I cannot do better than quote his letter. Mr. Ford says: "The plant was put in its present position in the autumn of 1898, being then the usual nurseryman's plant of small size. Its present measurement (June, 1905) is 12 inches by 11 inches. The aspect is north; the soil is the detritus of a Devonshire tor, which was cleared of Heath, Bracken, and Bramble in 1897, when the land was enclosed. It consists mostly of disintegrated shale, there being no limestone or granite. There have been 373 flowers, but these are now faded. The only treatment the ground has had beyond hand-weeding is the throwing roughly by hand, broadcast, manure consisting of an equal mixture of guano, basic slag, and ground bones. I attribute my success in gardening here to the fact that my gardener is not allowed to have a spade, and that the soil is left undisturbed." An illustration of Mr. Ford's natural rock garden appeared in THE GARDEN of March 7th, 1903.

Elmside, Exeter.

F. W. MEYER.

SCHIZOCODON SOLDANELLOIDES.

IN the note on *Schizocodon* in the issue for the 17th ult., I omitted to remark upon the charming tints which the foliage assumes under favourable conditions. While a shady position is conducive to free growth, it does not impart the beautiful colour to the foliage which is so

attractive a feature of this rare Japanese Moonwort. The same remark applies also to *Shortia galacifolia*, and to obtain the full beauty of leafage which these exquisite plants are capable of producing, a position only half shaded should be chosen. In such a position it is advisable to add rather more loam to the compost in which they are to grow. This will retain the moisture better than a wholly peaty soil, and also, I think, assist in furnishing the plants with the necessary elements for the formation of the colouring pigments.

THE ROSE GARDEN.

ROSA SINICA IN THE SOUTH-WEST OF SCOTLAND.

IN a favoured position on a south wall, this charming single Rose, best known, perhaps, as the Cherokee Rose, has bloomed this year in the gardens of Captain Hope, at St. Mary's Isle, Kirkcudbright. Although given every care it does not bloom under glass in the same gardens, but Mr. James Jeffrey, the gardener there, anticipates success with it under glass as well. So far as the writer knows it has not previously bloomed in the same locality, and its fine foliage, accompanied by the large single white flowers, have made the plant quite an object of interest in the garden at St. Mary's Isle. S. A.

ROSE J. B. CLARK.

This splendid Hybrid Tea has appeared just at the right moment, and I prophecy a very popular welcome for it. It is like a glorified Liberty, much brighter in colour than when I saw it last September. The flower that received the silver medal at the National Rose Show on July 6 last was a fine specimen when judged, but in the afternoon quickly exhibited its eye. Not that this is a defect, but I should like to see a little more fulness both in J. B. Clark and Ben Cant. I believe we are on the eve of grand additions to the high-coloured Hybrid Teas, and they will have come none too soon, as we sadly need them for grouping where the paler tints predominate. Mr. Hugh Dickson is to be congratulated upon his seedling. P.

ROSE LEUCHTSTERN IN KIRKCUDBRIGHTSHIRE.

This beautiful climbing Rose does very well in the South of Scotland, and grown as a pillar Rose it is one of the most pleasing among the many cultivated in this way in the fine gardens of St. Mary's Isle, Kirkcudbright. Not only does it cover the pillar freely with foliage—an important matter in a pillar Rose—but it gives multitudes of its charming little flowers. As is known to almost everyone acquainted with the newer Roses of this class, Leuchtstern has single flowers of a bright rose with a large white eye. On the best specimens, some 9 feet or 10 feet high, were thousands of these bright little flowers. It compared very favourably with some newer Roses of the same class, and was noticeably good even among the many Roses cultivated at St. Mary's Isle. S. A.

ROSE PHARISAER (H.T.).

There is surely a great future for this Rose. It grows with far more vigour than its parent, Mrs. W. J. Grant. We all know how abundantly Mrs. W. J. Grant produces seed, and possibly ninety-nine seedlings out of a hundred would be worthless, but if we could only obtain one good one we should feel well repaid if it were as good as Pharisaer. There is not much substance in the bloom, but, like Killarney, it lasts well. The growth is almost as attractive as the

flower, and it seems to be immune from the usual enemies excepting green fly. The colour of Pharisaer is salmon white. Its buds are, perhaps, the longest of any variety grown, not even excepting Gustave Regis. P.

MARGARET DICKSON AND OTHER ROSES.

THE Rev. David R. Williamson writes: "It will interest the raisers of that great Irish Rose, Margaret Dickson, to learn that this invaluable Hybrid Perpetual (which is, in reality, a half Hybrid Tea) is at present blooming on the walls of my manse at a height of 15 feet. This more than rivals its aspiring achievements in New Zealand and California, where, as I learn from Mr. Alexander Dickson, it has attained to an elevation in some instances of 14 feet. That sweetest and most fragrant of Hybrid Noisettes, Mme. Alfred Carrière, has made its way through a Hawthorn hedge in my garden, with fine floral revelations, at a similar height; while Paul's lovely Single White has climbed with splendid perseverance up a beautiful Walnut tree, and has shed among its upper branches a shower of snow-white flowers."

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

OSTROWSKIA MAGNIFICA.

(TO THE EDITOR OF "THE GARDEN.")

SIR,—It is too well known, as the correspondence in THE GARDEN showed, that many people have been unsuccessful in blooming this splendid Campanulaceous plant, and the writer has known a good number of ardent flower lovers who, despite every effort and care, have been unsuccessful, although they have had it for a number of years. It was thus a pleasure to see a good plant in bloom in the garden of Mr. G. F. Scott-Elliot, at Newton, near Dumfries, where it is cultivated in a border, sloping and lying well to the sun. It had no particular treatment last winter, save being covered with a few leaves as a protection from severe frosts. The great difficulty with many has been that the *Ostrowskia* made its growth early, and that this, if unprotected, was cut by the late frosts, to the loss of the flowering of the plant. Those who have seen *Ostrowskia magnifica* in good condition need not be told how beautiful it is with its erect stem crowned with its very large pale lilac flowers. It is not always, however, that it is in perfect condition, as the writer has seen it quite bleached, probably owing to undue exposure to the sun in front of a conservatory, where the heat was too great. The plant at Newton is in an open border, and has a free circulation of air about it, while well sheltered from the north and east. The soil is a free loam. S. ARNOTT

Sunnymead, Maxwelltown, Dumfries.

WASPS.

(TO THE EDITOR OF "THE GARDEN.")

SIR,—I fear those of us who are so fortunate as to have plenty of fruit on our trees will later on have considerable trouble with the wasps, judging from the large number of queens to be seen about earlier in the season. We shall have a busy time destroying the nests. We have tried a variety of things during the last twenty years for this purpose, but now use only turpentine, or turps as it is often called. This is the best remedy in every way. From a quarter to half a pint, according to size of nest, is poured in from a small can with a long spout at night, when the wasps are all at home, and a plug of felt paper or rag put in directly after. For about three

minutes there is a terrible uproar in the nest, then all is quiet, and it may be safely dug out or left in the ground, with the certainty that there will be no further trouble in that quarter. As the turpentine has not to be ignited, it can be used in many places where the old squib of gunpowder and sulphur could not. Of course the positions of the nests are marked in daylight so as to be easily found at night. G. D. T.

SAVE THE SWALLOWS.

(TO THE EDITOR OF "THE GARDEN.")

SIR,—I welcomed your plea for the swallows in THE GARDEN of the 30th ult. May I suggest to bird-lovers that we can all help the swallows by keeping their nests free from sparrows' encroachments. Some house-martins have for years built under the eaves in a corner close to my bedroom window. Last Christmas I saw grass and straw sticking out of their nest, a sure sign that sparrows had taken possession. I poked into the nest with a long stick, and found it lined with feathers, moss, and a small ball of grey garn—such snug winter quarters. All these I got out, rather wrecking the nest in my efforts, but to my joy the swallows returned this spring, and I watched them building. In June I was away from home for a few days, and on my return noticed the swallows wheeling round the nest uttering sharp cries. I soon saw a pert little sparrow hop out of their nest. This was a problem for the masculine mind to solve, so I reported my trouble to one of the sterner sex, who speedily shot one of the intruders. Within two hours the martins were back in their nest again, repairing damages. The hen has laid eggs there, and the young are hatched, and every morning I hear them "Cheep and twitter twenty million loves." Still one must watch, as sparrows have before now pushed the unfledged swallows from the nest and taken possession of it themselves. Swallows beaks are soft, being adapted for catching insects on the wing, so they are no match for the pugnacious, sturdy sparrow. I have heard of a gentleman who shot every sparrow that built on his property, with the result that whereas when he began the campaign only six swallows nests were built on his roof, in the following spring he counted fifty nests. A BIRD LOVER.

ROSES DEFICIENT IN COLOUR.

(TO THE EDITOR OF "THE GARDEN.")

SIR,—I grow Roses for exhibition, and although I have won several prizes this season I notice that my flowers are very deficient in colour in comparison to those exhibited by others. I have, for instance, about two dozen plants of Maman Cochet on half standards and dwarfs, which have grown splendidly, and are now covered with dark green healthy-looking foliage, but although the blooms are large enough, they are very pale, and in some cases a dull livid colour. Many have double centres, and nearly all open very slowly even in hot forcing weather, and some fail to open at all but gradually rot in a half open state, with the exception of one tree, which has had similar treatment to the others, but it has pale green foliage; indeed, it looks almost sickly, like a pot plant which has been over-watered, and from this plant I have just cut a lovely bloom, perfect in colour, shape, and size. Mrs. Edward Mawley, Bessie Brown, and some of the pink and red Hybrid Perpetuals are others which are poor in colour, and the two above named and White Maman Cochet open badly.

My garden faces south and is protected on the north and east by walls. The soil is medium loam about 2½ feet thick on a subsoil of gravel. All the trees, varying from one to four years old, were moved last November and planted in well-trenched ground, in which a fairly liberal quantity of decayed cow manure was added, care being taken to prevent it coming in contact with the roots. The surface was frequently

hoed during the winter, and a mulch of half-decayed and sweet peat moss litter was added in March, but no liquid manure was given until the trees were well covered with foliage and the buds could be felt or seen, and then it was only applied after rain or subsequent to a thorough watering. The liquid manure was made in the usual way by putting a bushel of horse droppings in a bag in a large cask of water, and about a peck of soot. This was given well diluted alternately with sulphate of ammonia (1oz. to the gallon) or a sprinkling of Clay's.

I pruned the Hybrid Perpetuals hard, and the Teas to good sound wood. Should you consider that too rich a dietary is the cause of the failure of the blooms to open properly and their deficiency in colour, would you advise me to add lime, or would it be best to leave the plants alone and apply less manure next spring? Or can you suggest any other cause? The books (especially that excellent treatise by the late Dean Hole) tell us to manure Roses liberally,

memory. We went to the Old Rose Nurseries at Cheshunt on a sunny June day, and saw there in their fresh beauty what the wise men of the Rose world are pleased to call "garden" Roses, that is, a variety or hybrid, as the case may be, that does not aspire to hold high festival in the little box at the exhibition, but the enthusiasm of the exhibitor we hope will never die. The exhibition feeds the intense desire to do better than one's neighbour, and the man who looks with pride upon his first prize blooms and photographs them for his heirs to hold them in remembrance has Roses in his garden in profusion, even the "glory" of the cottager, though it may possess no exhibition merit.

We may at once remove any impression that the previous words might convey by stating that Messrs. Paul's Rose nurseries contain the most general collection. There are exhibition Roses of the newest productions, rare species and hybrids that the world seldom hears of, and hybrids and

anything the garden can present in the height of summer. It is a Rose for all gardens.

And was it not Messrs. Paul that gave us Una, which is fairer than one of its parents, the wild Rose of the hedgerow, and stronger and freer than the peerless Macrantha? It is as perfect a garden Rose as well can be, the flowers creamy white, with a suspicion of pink, the buds quite yellow, a passing from one beautiful tint to another.

A brilliant trio is composed of The Lion, Purple East, and the Wallflower, the product of one seed-pot, and the colour effect is extraordinary. The Wallflower Rambler is perhaps the most profuse in bloom, flowers of rosy crimson lining the strong shoots, which are too heavily burdened to swing in the breeze, a perfect hedge Rose for lighting up the garden in June and onward with an almost startlingly intense colouring.

It is interesting to know that the more neglected groups of Roses are taken in hand for the purpose of adding to their race. The Moss, Bourbon, and Musk Roses have been hybridised, and the new Bourbon, Mrs. Allen Chandler, is a distinct advance. It is an absolutely pure white sport from the well known Bourbon Rose raised here, Mrs. Paul, and should be grown as a bush to make a mass of white on the out-kirts of the lawn or pleasure grounds. It is of great vigour, a sweet pretty Bourbon Rose of uncommon interest.

Pillars covered with Paul's Carmine Pillar remind us of Messrs. Paul's work in the past, and probably no single-flowered climbing variety has been more planted in English gardens. We deplore the short life of the beautiful flowers, but are thankful to have them with us for even a day, so pure and bright is the colouring. One of the more distinct of Hybrid Teas raised recently is Lady Battersea, which was shown finely by the raisers, Messrs. Paul, during last spring. It is an excellent Rose for forcing, and has also great value for massing in the open garden.

We must pass to the other new Roses raised here with a briefer note than we had hoped to have given them, but an opportunity will present itself at some future time for a more minute description. The sweet rose-coloured Cherry

Ripe, the Bourbon Snowdon, the flowers of spotless purity; Colour Queen, a German novelty, *Farbenkönigin*, with deeply shaded buds; Royal Scarlet, a single Rose, but as brilliant in colouring and effect as a Henry Jacoby Geranium, a perfect little Rose for massing in the same way as *Fabvier* should be used; a dainty little Hybrid Musk, aptly named *Snowstorm*, from the profusion of flake-like flowers; the rambling and now well known *Psyche*, and the *Dandy*, a pure Hybrid Tea, which was much admired at a recent meeting of the Royal Horticultural Society. It is a seedling from *Bardou Job*, and its origin is evident in the soft velvety petal of the purest maroon, almost the colour of its parent. The flower is exquisitely neat, perfect in the half-expanded bud stage for button-holes, and very fragrant. Combined with these virtues is a strong almost evergreen foliage, and happily the flowers continue to expand from early summer until the autumn.

A short drive from the nursery at the back of the beautiful old Elizabethan house is one of the finest fields of Hybrid Teas it has been our pleasure to see, embracing not only well known hybrids, but those of recent date. Of the newer forms we noticed superb flowers of *President*

THE WONDERFUL HEDGE OF ROSA RUGOSA REPENS ALBA AT CHESHUNT.

and that no harm can accrue if the manure is properly prepared, or if liquid manure is given the first season. It should not be added until the foliage is well developed, and I have endeavoured to follow these directions. I should be very grateful for your advice.

ROSARIAN.

[We hope that readers will give our correspondent the benefit of their experience.—ED.]

THE ROSE NURSERIES OF BRITAIN.

I.—MESSRS. PAUL AND SON, CHESHUNT.

THE Rose nurseries of Britain when the queenly flowers are in the full flush of their summer beauty are gardens of Roses. There are Roses everywhere, bushes, hedges, standards, and even lanes of flowers, so beautiful and satisfying that a visit to these perfumed acres is always a pleasurable

variety which had their birth in this flowery pleasant valley. The work of hybridising, for which the enthusiastic Mr. George Laing Paul is largely responsible, has resulted in many flowers which will scent the gardens of England for generations. *Rosa rugosa repens alba* is a dream of large starry blooms that cover the *Rugosa*-like leaves. Thousands upon thousands of flowers were open on that June day, the parent plant covering no less a space than 250 square feet. It is a joy to see the vigorous shoots covering the soil with their foliage and flowers, but when the plant is grown as a standard its trail of snowy petals swing gracefully in the wind, and Messrs. Paul recommend it to be grown as "a half-standard on a 3 feet stem."

The Tea Rambler, a seedling from *Crimson Rambler*, is another of Messrs. Paul's acquisitions which startled the Rose world a few years ago. The Tea has not its almost painful brilliancy of colouring, but the fresh satiny petals, which open out into quite a coppery shade, passing to salmony rose with age, have a distinct refinement and softness. The shoots will develop a length of 12 feet in a season, and are bent with the weight of sweet smelling blooms. A weeping standard is as graceful as

Carnot, which has delicate Rose petals of great width and substance. Marquise Litta, Mme. E. Metz, salmon pink, very fine in all ways, and never touched with mildew, and better-known hybrids such as Mrs. W. J. Grant, the petals measuring fully 6 inches in width; Mme. Cadeau Ramey, Bessie Brown, Mildred Grant, Mme. Ravary, and the Hybrid Perpetual Frau Karl Druschki, which was alone worth a long journey to see. It is gratifying to find a new Hybrid Perpetual of such pronounced beauty. One group of plants had no less than 500 expanded flowers, a sheet of purest white, and showing that this Rose is not only of great excellence for exhibition but also for massing in the garden.

The nursery near the house contains a collection of the old garden Roses which scented the gardens of our forbears, and interesting species and varieties which are rarely seen in these days of Hybrids, Teas, and Chinas. In one place we noticed *Clynophylla plena*, close to the *Rugosa* *Rose Thusnelda*, which blooms very early, and has the most charming of blush rose shades. It has the merit, too, of flowering throughout the summer. A beautiful *wichuraiana* Rose is *Ferdinand Roussel*, the flowers covering the glistening foliage. It has evidently much of the Tea blood in it. *Le Progres*, a Hybrid Tea, should be made note of for its beautiful yellow colour, as rich as W. Allen Richardson, and very sweet; *George Laing Paul*, crimson, a very free garden Rose; *Mme. Durand*, *Pharisaer*, *Catherine Zeimet*, *Aimee Cochet*, a lovely pure self pink; *Senateur Belle*, *Mme. Paul Lédé*, *Konigin Carola*, *Souvenir de Wm. Robinson*, *Mme. J. Philippe*, *Mme. Jules Gravereaux*, *Venus*, *Mme. Antoine Mari*, *Triomphe de Pernet Pere*, and *Perle de Neige*, but these are only a few of those that should be recorded in the notebook of the rosarian.

It is a pleasure to walk through a nursery so replete with interest and instruction as this, the Roses of a bygone age with the most recent of novelties, and sweetness suffering little in comparison. Here are masses of the Hybrid Chinas, *Mme. Eugene Resal* and *Mme. Laurette Messimy*, and a hundred other good garden Roses, grouped in a way that it is possible to gauge the effect that would be produced when planted in the pleasure grounds or Rose garden. A summer day spent among the Roses at Cheshunt is a day well spent.

THE FLOWER GARDEN.

LAYERING CARNATIONS.

IN order to bring the wood to that degree of hardness when it is fit to be layered, the plants should have full exposure when they have done blooming. At all times during the summer the plants should have a free circulation of air among them, and the act of shading the flowers for exhibition does not prevent this. The aim, then, of the propagator should be to secure ripened wood. Let it be remembered there is a happy medium as affecting the condition of the wood, or, as the Carnation grower terms it, the "grass" for layering; it should neither be too soft nor too hard, though I would rather have it somewhat hard than too soft. There is no ripening process better than a full exposure to the sun.

Layering can commence as early as the middle of July, provided the grass be fit. Care should be taken to thoroughly moisten the ball of soil about the roots of the plant to be layered a day or two before the operation is performed. The reason for this is that after the layers are made the plant can be watered only through a fine rose watering-pot, and if the ball of soil be dry, the layers will be weakened. If after a plant is layered I have reason to think it is suffering



ROSE PSYCHE ON THE PERGOIA AT KEW.
(Raised by Messrs. Paul and Son, Cheshunt.)

from dryness at the root, I stand the pot in a pail of water deep enough for it nearly to reach the rim of the pot, and so thoroughly saturate the soil. Care being taken that the soil about the roots is thoroughly moist, as soon as the surface is dry, the layers are trimmed ready for layering by removing the lower leaves and shortening the ends of the others; then by means of a pointed stick the old soil is removed to the depth of 2 inches or 3 inches and its place filled with a good sandy compost, not too stiff; fine loam, leaf-mould, and a good quantity of sand are very suitable, and then the plant is ready for layering. The process of layering consists in piercing through the shoot of a Carnation just above the joint by means of a sharp knife—a penknife with the blade sharpened on both sides is best, and then drawing it out at the back of the shoot by means of a downward cut, thus half severing it from the plant. In doing this a kind of tongue or nib is formed; this is cut back to the joint, and then the layer is gently, but firmly, pressed down into the soil and fastened by means of a peg. It is very much a matter of practice. A skilful man can put down the layers of several

hundreds of plants in pots during a day of ten hours provided the plants are prepared for him. If the wood is in good condition, a return of at least 90 per cent. of well-rooted layers may be looked for.

The normal increase of a plant in a good season is five; in bad seasons only three. This is a mean average, but it is well known some plants produce more grass than others. The earlier layers can be laid down, the more likely are they to root quickly. Layers put down at the end of July and early in August may be expected to root in four or five weeks; those put down in September require a longer time.

Sometimes the shoots which can be layered are so high up on a plant that they cannot be brought down to the level of the others without danger of breaking them off. To meet this difficulty, it is a common practice to fill a small pot, from which the bottom has been removed, with soil, so that the layering pegs may pass through it into the soil in the big pot below. These pots should be kept upright, and an oyster shell or piece of broken crock placed upon the surface to prevent evaporation. The work of layering completed, a sprinkling should be given through a fine rose watering-pot, and the pots be sheltered from hot sunshine until the layers begin to root; then they may be fully exposed.

The advantage of having the plants in pots for layering is obvious. The plants are under much better control, the wood is better ripened, layering can be done under cover in bad weather, and the layers root more quickly in the pots than in the open ground. Further, if heavy autumnal rains set in, which tend to hinder the rooting of the layers, the pots can be taken under shelter. It is a practice with raisers of new varieties to test their seedlings thoroughly in the open ground, and then lift the plants and place them in pots for the convenience of layering. R.

THE GLADIOLI.

It certainly goes without saying that the Gladioli are among the finest of late summer and early autumn flowering plants. Rich, varied and good in colour, they only require to be well dealt with to ensure the best results. Their cultivation is well known to those amateurs who take a keen interest in these showy and beautiful plants. But, while the usual or orthodox way of growing a few of these plants in the border is well understood, it does not follow that anything like the best results are secured from year to year. In common with not a few other things that could be named, the genus *Gladiolus* is singularly benefited by fresh ground, and in particular by being planted on this for the first time. Here, however, a drawback is liable to crop up, and, should the new soil be light or such as has been down to pasture for some time, the chances are that wireworms will be present in either large or small numbers. When a choice selection or collection is about to be planted, the importance of having land quite free from such a pest cannot be over-estimated. Hence it will be well to anticipate the coming crop, and so arrange matters previously that the plants now under notice are not really being planted on maiden soil. Naturally, nothing is better than this if the land enjoys perfect immunity from the larvæ mentioned. Of suitable soils, a rather holding or slightly clayey loam will be found to promote the greatest vigour, and particularly when the preparation is of the right kind.

Autumn digging—or rather, by way of preference, trenching—should always be indulged in, working in the heavy supplies of manure at one spit deep, and leaving the upper surface to be pulled down by wind and weather in due course. During frosty weather, or such weather as will permit of the land being walked upon with impunity, sewage refuse may be carted or barrowed on the surface and spread, likewise a good dressing of bone-meal or of lime to be worked down gradually. This may finally be



HELONIOPSIS BREVISCARPA

worked in with the fork or at planting time, and with such care good spikes in plenty should follow in due course. Possibly such or similar care has been bestowed on this valuable race of plants over and over again, and it must needs be if the spikes are to attain full development. In the more heavy class of soil it is often necessary to surround the corms with sharp sand or grit, so that an early rooting may be encouraged, and equally that the root-fibres be preserved. In the lighter and sandy soils this is, of course, unnecessary, and rather than make preparations to this end measures have to be adopted by which the soil is retained in as cool a condition as possible. For this purpose, more or less, fresh cow manure is deeply buried in the soil below the corms, not so much for the sake of enriching it, but to assist that uniformly cool condition below ground that so much contributes to the general success in times of great heat and continued drought. As to progress in these plants, and especially in the perfecting both of spike and blossom, it would almost appear that the strain of cross-breeds known as *gandavensis* has reached the highest beauty. Indeed, in such self colours as salmon, salmon-scarlet, the true scarlets, and some others, this would appear true, while in such as white and yellow shades there would appear still room for work and improvement. The race or section of these plants, however, that is each year drawing more attention to itself is that known as the *Lemoinei* group, a set characterised by greater hardiness, and embracing a variety of colour unknown in the other section. The hooded character of the flowers, too, is by no means the least attractive feature of these kinds.

E.

COLOURED PLATE.

PLATE 1278.

HELONIOPSIS BREVISCARPA.

THIS is a pretty, low-growing plant introduced from Japan, having small leaves and racemes of almost squill-like flowers. It does not grow more than 6 inches to 8 inches high, and produces tufted leaves and racemes of palest lilac, or almost white, bell-shaped flowers. This *Heloniopsis* is quite hardy, and will be welcomed by all growers of hardy spring-flowering plants. This species was exhibited by Messrs. Barr and Sons, King Street, Covent Garden, before the Royal Horticultural Society on March 14 last, and was then given an award of merit by the floral committee.

WATERING.

WHEN seasons are of the ordinary mixed character and showers alternate with sunshine, the grave need there is for having plenty of water at disposal does not present itself. When, however, month after month passes away, and in place of showers, cold nights or dry harsh winds alternate with hot, parching sunshine, then is it found that without liberal waterings crops cannot thrive, and

indeed can hardly exist. But even where there may be an abundance of water, very much of its usefulness depends upon the facility with which it can be utilised. Where with plenty of water there is constant pressure and the hose can be always in use, great things in the direction of supplying needful moisture can be done. When, on the other hand, water has to be carried by tubs or cans, and often long distances to moisten crops, then is the labour most arduous; indeed, is of the heaviest which gardeners are called upon to undertake. Waterings that are of a mere surface kind do little or no good. They may give to vegetation a temporary stimulus and help to generate roots which come to the surface in search of moisture. But mere surface waterings soon disappear under the influence of hot parching sunshine, so that the latter case of the plants is very often worse than the first. It may well be asked whether as a matter of cultural policy watering in such case had not better be omitted altogether. If soil has been, as all soils should be, deeply worked, it is far wiser to encourage the roots to go down deep in search of such moisture as the lower soil still affords, and this, too, out of reach of the scorching rays of the sun, rather than to attract them to remain near the surface by sparse waterings that are so soon dried up. Whilst there are other good reasons why plants prefer deep soil to that which is shallow worked, none have greater force than is found in the capacity of roots to go deep down in search of moisture, and find it, too, when the surface soil is parched and dry. All experience also favours the contention that one thorough soaking of the soil is far more beneficial than are several mere surface waterings. When soil has been deeply saturated it is not difficult to help to the retention of the moisture by surfacings with litter or manure, or even with dry, loose soil, as this latter,

even if affording no plant nutriment as manure, will at least act as a mulch in intercepting the strong rays of sunshine, and thus prevent rapid evaporation. Although it is generally held that leaves have considerable capacity to absorb moisture from the atmosphere, yet let the air be ever so hot and dry it is surprising to see how leafage will remain firm and fresh when roots find moisture. When both air and soil are dry, then leafage suffers materially. Still, it is relatively easier to supply moisture to roots than to leafage, as soil may be made to retain this water for some time, whilst leafage dries rapidly. But even in the hottest of weather, assuming that nights are of the ordinary character, no doubt considerable moisture is absorbed from the air by leafage then, as there is always some modicum of humidity available, as is evident by the way in which flagging leafage will revive so soon as the rays of the sun are withdrawn. But whilst plants do derive benefit from atmospheric humidity more or less, it is certain that all derive very material benefit from soil moisture. It is from the soil and through the agency of roots alone that plant food is obtained, and we know that such food can only be obtained through the agency of minute roots hairs, in a highly soluble form, which is practically as liquid, so that where soil is very dry, not only water, but food is denied to plants. That roots have a remarkable searching power and can find moisture where none is apparent to human vision there can be no doubt. Nothing is more noticeable in that respect or more wonderful than is the way in which huge trees continue to leaf and grow year after year, even though the soil about them be hard baked, impervious, and apparently dry as dust. That condition of soil is often found in avenues, or woods, or where clumps of trees are dense, and there is scarcely any evidence of the presence of moisture. B.



THE WHITE HYBRID PERPETUAL ROSE FRAU KARL DRUSCHKI AT OHSCHUNT.

GARDENING FOR BEGINNERS.

SIMPLE HINTS.

SPRAYING POTATOES TO PREVENT DISEASE.—The Bordeaux Mixture is a preparation of copper sulphate and lime, and is not expensive. It has been stated that spraying on a large scale will cost from 7s. 6d. to 10s. per acre. Small garden plots may proportionately cost a little more, but to be really effective in saving a crop it is necessary that the spraying should be done in time; it must, in fact, be used as a preventive, beginning between the middle and end of July, and repeat once at least in August. To be effective the mixture should be properly prepared, and to ensure this it is better to purchase the mixture from the manufacturing chemist, who has machinery for grinding and mixing. It is usually sold in tins or kegs at a moderate price, with full instructions for use upon various crops. If used as a preventive a weaker solution may suffice. This mixture may be used upon any plants liable to be attacked by fungus.

Planting Bulbs in Grass.—Even in summer time, when the garden is full of flowers, it is necessary for the gardener to look forward and make preparations for another year, and those who wish for a good display of Daffodils and other spring flowers next year must soon think about planting, for now the sooner they are planted the better. The accompanying illustration gives a good idea of how bulbs should be planted in grass land, in some wild corner of the garden where they produce delightful effects in spring time. There are in many gardens waste places that might be greatly beautified by the planting of a few bulbs. Or what more beautiful garden picture can there be than an old orchard, with bulbs planted in drifts between the trees, when both bulbs and fruit trees are in flower. It is important to plant carefully, otherwise the best effect will not be secured. It is generally admitted that the best way to plant bulbs is as shown in the illustration, in long drifts, something in the way that leaves are blown into drifts along road edges. For guidance in planting sticks might be placed at the ends of each drift and ropes laid to show the outside of the drifts, then two or three bulbs placed into a spade-cut made within the ropes. Or the lines could be marked with a little whitening and water with a tennis court marker. If the whole turf is not raised the spade should make two cuts, then a V of turf and earth lifted would make a space to take two or three or more bulbs according to size. It is rather difficult to plant bulbs informally, and not easy to explain how to avoid regularity. One way is to throw the bulbs on the ground and plant them exactly where they fall. The middle of the group or drift should always be planted thickest; the inner drifts on the diagram will show what is meant. Daffodils have a poisonous quality, and are generally avoided by cattle in pastures, but the dried leaves in hay are harmless.

Summer Pruning.—This is a large business if fully carried out, and should be applied not only to wall trees and espaliers, but also to Raspberries and bush fruits. The thinning of the young wood of bush fruits and Raspberries will for the most part be completed, or, at least, be

well on the way. Red Currants are often on some soils attacked by aphides, and if the summer pruning is done before the insects spread over the bushes a clearance can easily be made and the fruit assisted to ripen at the same time. The flies always appear on the ends of the young shoots first, and work downwards, and if the summer pruning is done before the attack is fully developed not much harm will follow, as the insects will be removed on the prunings and burnt. If not already done, the young canes of Raspberries should be thinned at once, removing, of course, the weakest, but leaving enough of the best-placed canes for next year's crop. Plums on walls and pyramids should be pruned now, shortening the shoots left, after a selection has been made for laying in a vacant place, to four leaves. It is not often that Plums make much growth after July unless they are cut hard back. Usually the crop of fruit steadies the growth, and the leaders and other shoots left for nailing in form sufficient outlets for energy. We usually begin upon the Pears and Apples towards the end of July. By that time the growth is getting firm, and if the trees are carrying any crop at all, the growing force, or a good deal of it, will

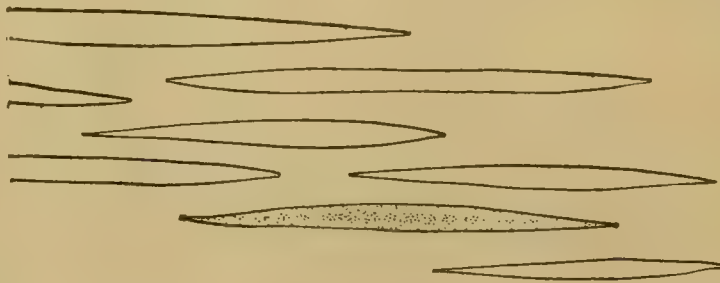


DIAGRAM SHOWING GENERAL METHOD OF PLANTING BULBS IN GRASS IN LONG DRIFTS.

(The hard outer line is only a guiding line to be temporarily marked by rope.)

be absorbed in the development of the fruit. In leaving four or five buds or leaves there is still some openings for the sap; at any rate, the bottom buds will not break into growth, and they also are building up fertility, and some of the lower buds will become flower-buds in the future. The Morello Cherry is treated after the manner of Peaches on walls, the crop being formed on the young wood of the previous year. At this season surplus shoots are removed, and the remainder nailed or tied in. Morello Cherries are sadly subject to black fly, but, if taken in time, this may easily be got rid of by dipping the ends of the shoots in an insecticide.

Watering Outside in Summer.—The beginner very often makes mistakes in watering. He is told to give a good soaking, but the term is difficult to define, and many fail to grasp its meaning. The only safe course is to flood the site on which the plants are growing, so that all the roots may be made moist; but this is often a heavy business, and he may reasonably ask if there is any alternative course. There are several alternatives, and the best, if we want to save labour in summer, is to deepen and improve the land in winter and work in manure. No land is worth much for gardening purposes till it has been broken up at least 2 feet deep, and made suitable for the roots to work in. If the sub-soil is bad, break it up and manure, but leave it there to improve, which it will do if well broken and

the air permitted to enter it. Another alternative method is to mulch, or, in other words, to place a layer of manure on the surface. This is a great help in a dry time. And if the manure supply is too limited, which often happens, then use the hoe or the small fork to secure a couple of inches of loose soil. Very often hoeing is better than watering, especially if the water is given in dribbles on the surface. Whoever has a dry hard soil, and the plants starving and stunted, should think this matter over, and they will come to the conclusion that the trenching and manuring should be well done.

Layering Carnations.—July and August are the months for layering Carnations and similar plants. The knife must be sharp, and the hand which uses it should have delicacy of touch, so as to make the upward incision through the joint in the right manner, without doing too much or too little. These are important, but to ensure complete success small mounds of gritty soil should be placed round each plant, into which the layers should be firmly fixed with wire or wooden pegs. It is usual to shorten the ends of the grass, and the soil round the layers must be kept reasonably moist. For propagating purposes it is better to plant enough Carnations of each kind for stock purposes in a reserve bed, where the plants will not be so crowded as they usually are when used to fill beds in the lawn or in groups in the border. Any shoots which cannot easily be layered may be taken off and used as cuttings, inserting them in sandy soil under hand-lights. The young wood for layering should be in a medium condition, neither too old nor yet too soft. When the right joint for operating on has been selected, strip off the bottom leaves, make the incision in a slanting direction through the joint, so that the opening comes on the layer side and, when pegged down, will be partially open. This arrests the sap when descending in its usual course, granular matter is formed, and roots emitted in the course of a month or so. The plants can be moved in October or when ready.

Budding Roses, Fruit Trees, Thorns, Almonds, &c.—The art and success of budding, to a large extent, consist in selecting the right time, and are largely influenced by the culture given to the stocks. If the soil is poor and the weather hot and dry there will be many failures. So well is this understood by good rosarians that the land for the stocks is heavily manured and the surface mulched, so that the young growths of the standard Briars, which are the most difficult to work, are well grown and retain their elasticity for some time. When the stocks are in the right condition and the bark works freely, there is no difficulty about budding if the wood from which the buds are taken is in the best and most elastic condition also. When the young wood is dry and hard it is better to wait till a change comes in the weather, or give the stocks a good soaking of water to hasten and stimulate the circulation, and when this takes place begin budding. Every exhibitor must bud Roses, simply because he will want the flowers from the maiden plants as well as from the cut-backs. Very often the maiden plants produce the finest blooms, and they also come later; therefore, whoever hopes to get success at the shows must bud as well as buy.

The process of budding is very simple. The budding-knife is drawn in a straight line up the upper side of the branch, beginning near the stem, and running up about 2 inches. A transverse cut is made about half an inch from the upper bud. In all cases the knife only penetrates the outer bark, without disturbing the cambium or inner bark. The ivory or bone handle of the budding-knife will lift the bark, when the bud can be glided in and pushed home. The tying material may consist of raffia or worsted or cotton, and the wood should be covered and the bud firmly bound in position. The selection of the buds should really be done before the stocks are opened. The essential points are plump buds with enough elasticity in the bud to permit of the extraction of the wood without injury to the "eye" or centre of the bud. There is no advantage in having a very large shield of bark. Three-quarters of an inch is enough, with the bud placed in the centre. Do as much as possible of the budding in showery weather and dull, sunless days; mornings and evenings also can be utilised. Bud the standard Briars first and the dwarfs later, as moist bark can always be found by removing a little soil at the base. The curious in such matters may be interested in budding two or more varieties on one stock, but they should be of equal growth.

Weeping Trees.—These on the lawn or near its margin always give character to a place. There is much variety among them now. Some of the most effective are the Weeping Birch (Young's variety), Weeping Elm, Lime White Weeping, Cherry Weeping Mahaleb, Weeping Ash, Beech Purple Weeping, and the Weeping Willows on the margins of lakes, or near water. The trees should be obtained in the form of tall standards and planted in good soil.

Winter Spinach.—Very few sow enough winter Spinach, and waste the seeds by sowing too thickly. If the ground has been freshly dug over, time should be given to settle or some pressure brought to bear by treading or rolling, as the plants stand the winter best in rather firm ground. If the ground from which early Potatoes are lifted was properly prepared last winter, Spinach may be sown upon it, after giving a dressing of soot lightly forked in. Draw drills 1 foot apart and 1 inch deep, and thin the plants when large enough to 6 inches apart. It is wise to make at least two sowings, the first between July 20 and the end of the month, and the second about the middle of August. The last will stand the winter well, and be exceedingly valuable in spring. The prickly seeded variety is mostly sown, but once running short of seed of the prickly kind, I sowed the round-leaved variety, and it did very well. I sometimes think in this and other respects we are too much bound up in precedent. The same idea occurs anent winter Onions; the books say sow Tripoli or Lisbon Onions for winter, but other sorts do equally well. Many years ago to escape the ravages of the Onion maggot I commenced sowing White Spanish, James' Keeping, and other kinds of Onions in the first week in August, and found it answered. Now we generally sow Onions in boxes under glass in January, and plant out when ready, and only sow Onions outside for drawing young.

Gooseberries for Dessert.—Small Gooseberries are not cared for much. The large ones, when well ripened, are superior, and, what is most important, retain their flavour longer after they are ripe, but it is essential, to obtain good flavour, that the bush should be summer pruned, or, in other words, that the young wood should be thinned in time to let the sunshine in to ripen the fruit. This at the same time ripens the wood, so that, no matter how trained, the trees always bear well. The following dozen are all good for dessert: Pinaston Greengage, White-mith, Industry, Leader, Speedwell, Venus,

Green Gascoigne, Keen's Seedling, Ironmonger, Broom Girl, Crown Bob, Warrington, and Keep-sake. Every fruit tree grower stocks the best Gooseberries now, so there will be no trouble to get them.

Gooseberries for Exhibition.—Size and weight alone are considered in this class, and though a good deal depends upon the cultivation, it is necessary that the largest and heaviest fruiting varieties should be grown. Some years ago I paid a visit to a big Gooseberry exhibitor. His bushes were models of thinning and training, and under each bush were pans of water, so that vapour might constantly rise among the berries. The following are good exhibition varieties: Dan's Mistake, Flintonia, Slaughterman, Telegraph, London, Drill, Catherine, King of Trumps, Freedom, and Antagonist.

Nepeta Mussini.—Might I suggest that some day you find a few spare lines in your "Gardening for Beginners" page to notice a plant which I think amateurs neglect—*Nepeta violacea*? I cannot claim any credit for possessing it. My florist made a mistake, but having got it I do not want to lose it. It blooms nearly all summer, is a perfect mass of blue, is always neat and tidy, never suffers from insects, is easy to increase by division but does not become a weed, and is very good for cutting; in fact, I think it is one of the most graceful things one can grow. Sprays arranged in vases with white Pinks form a charming table decoration. People who scoff at plants which require no coddling may call this a weed, but we amateurs want plants which will look after themselves. The bees are very fond of this *Nepeta*.—OLIVER T. BRYANT. [The plant meant is probably *Nepeta Mussini*, a native of the Caucasus. It has been in cultivation for a long time, and is figured in one of the early volumes of the *Botanical Magazine*, t. 923. Very free growing, it is a suitable plant for old walls and such-like places, where it will continue to bloom for a long time during the summer. In the border, also, it makes a neat, bushy plant under 1 foot high, covered with a long succession of flowers.—ED.]

GARDENING OF THE WEEK.

FLOWER GARDEN.

ROSES.—Look over Ayrshire, cluster, and single Roses going out of bloom, cutting out spent flowering shoots and weak growths. Secure strong shoots to their supports, and give a heavy syringing with an approved insecticide to destroy aphid and red spider, and keep a sharp look out for caterpillars. Many of the Teas, Hybrid Teas, Noisettes, and some of the earlier Hybrid Perpetuals will also be benefited by similar treatment as to pruning and cleaning, and if dry apply water copiously and feed liberally, thus encouraging the production of a full autumnal crop of bloom.

NYMPHÆAS.—These are now at their best. Go over them occasionally to pick out dead blooms and decaying and damaged leaves, and keep the ponds free of weeds. I find goldfish, especially the golden auk, excellent for keeping down *Conferve* in stagnant water, for they keep the surface constantly agitated, but have the drawback of causing clear water to become dark. *Aponogon distachyon* is a beautiful water plant, but avoid planting it in *Nymphaea* ponds, for its seeds and germinates so freely that it soon overruns the whole, and becomes a pest. Plant it either in a pond by itself or in conjunction with other aquatics which associate and harmonise better with it than *Water Lilies* do. Pull out the decayed spathes of *Richardias*. They form noble groups in shallow water.

THE ROCK GARDEN. is now gay with its varied occupants. Keep all quite clean, tolerating neither weeds, decayed blooms, nor foliage, and attend to the various requirements of the plants in watering, shading, &c.

THE WILD GARDEN.—Strong-growing subjects will require copious supplies of water at this season to keep up the vigour of the plants and to build up strong growths, bulbs, or crowns, as the case may be, for another year. At alternate waterings give good doses of liquid manure or an occasional dressing of artificial manure and rich mulchings. Grub up coarse weeds and grasses, and run the scythe lightly over the rougher portions now and then, but do not aim at the trimness so essential on lawns and parterres adjoining the dwelling. At the same time

maintain order and cleanliness everywhere. If treated on natural lines this part of a garden is very interesting over a long season.

BAMBOOS.—Most of the Bamboos that have flowered so freely this year are again brightening up and assuming a more cheerful green aspect. B. Simoni has presented a brown and withered appearance here for some time, but even it at last has a shimmer of green over it. Drench with water occasionally.

CONIFERS.—Free-growing single specimens should be watched and kept evenly balanced by nipping in a gross shoot wherever necessary, and if the leaders have through any cause been lost, they must be replaced by a strong and well-placed side branch, tying it on to the dead leader, or if that be not available, fix a stake by tying firmly a little down the stem and allowing it to overtop the tree 2 feet or so, and tie the prospective leader to it.

HYACINTHS, TULIPS, DAFFODILS, &c., which were heeled in at bedding time will now be well matured, and should be sorted and stored in dry cupboards until the planting season comes round again.

The Gardens, Tan-y-bwlch, North Wales. J. ROBERTS.

INDOOR GARDEN.

PERSIAN CYCLAMENS.—Shake off most of the soil from the old corms and repot into the same size or a little smaller pot, according to the size of the corm and the pot it is in at present. Place in a cold pit or frame, keep close and shaded till growth begins, when air may be admitted gradually. Syringe morning and evening. The most forward of the seedlings can be fully exposed when the weather is favourable. Vapourise with XL All at intervals to keep down the attacks of aphid and thrip.

FREESIAS.—Shake out and grade the bulbs, selecting some of the best for potting up at once. Use a compost of two-thirds loam, one-third leaf-mould and decayed manure, adding plenty of sand. Eight to ten bulbs are sufficient for a 5-inch pot. Place in a cold frame, shade till growth begins, giving only sufficient water to keep the soil moist. If preferred the pots may be plunged in coal ashes or cocoanut fibre. The bulbs not required for potting at present can be stored in old dry soil or cocoanut fibre in a cool shed till it is time to pot up another batch for succession.

CAMPANULAS.—Seedling C. pyramidalis are ready for potting into 5-inch or 6-inch pots. The soil should be fairly rich to encourage strong growth. Continue to feed the plants coming into flower liberally, as they like a rich soil. Stake and tie any of the growths the least likely to get broken by heavy storms of rain or wind. Give liquid manure also to the baskets of C. isophylla and its varieties. If the plants growing in pots cannot be allowed to hang down, support the growths with a few pieces of stick from an old birch broom.

CINERARIAS.—The varieties it is necessary to grow from suckers or cuttings having been cut down to within 6 inches or 9 inches of the pot are throwing up freely. Insert the cuttings in light sandy soil and place in the propagating frame. The suckers can be potted up singly in small pots, keeping the frame close for a few days, when they can be treated similarly to the seedlings. For preference they should be placed in a frame having a northern aspect.

GENERAL REMARKS.—Remove all flower-buds as they appear from the zonal *Pelargoniums* for winter flowering. Take out the points of the shoots occasionally to encourage the production of short sturdy growth and well-shaped plants. Insert cuttings of *Acalyphas*. Pot on a few of the best *Francoas*, as they go out of flower for specimen plants another year. The earlier plants of Chinese *Primulas* are ready for 5-inch and 6-inch pots. Give ample ventilation as soon as the plants are rooting freely in the new soil; if this is not done the plants are apt to become drawn. Allow plenty of room between the plants, and keep near the glass. Damp overhead morning and evening during bright weather. Give the Egg plants (*Solanum Melongena*) and *S. integrifolia* the final shift. Use a rich soil and pot only moderately firm. Sow seeds of *Begonia semperflorans* and insert cuttings of such sorts as *Corbeille de Fen*, B. knowsleyana, B. Dregei, &c., for flowering in late winter and early spring. At this season, owing to the heat, the flowers in the conservatory soon fade, necessitating constant changing of the plants.

Royal Botanic Gardens, Kew.

A. OSBORN.

FRUIT GARDEN.

LATE VINES.—The most important work among late Vines now is maintaining a suitable atmosphere. Here we have had a long spell of hot weather. The chief object has been to keep the houses as cool as possible, consistent with a congenial atmosphere. At this time of year late houses should never be closed unless the weather is very unfavourable. Increase the ventilation early in the morning, continuing to do so as the outside temperature rises till the ventilators are wide open. Frequently damp down all available spaces in the house. If the borders have not been mulched, this should be no longer delayed, so that the berries receive the benefit of it before they commence to colour. Rich farmyard manure is an excellent dressing for Vines. This should be thoroughly washed in at once. Do not allow laterals to ramble too far before stopping, but remember that late Grapes require a good covering of healthy foliage. To encourage root action the leading shoots may be allowed more freedom. The varieties *Lady Downes' Seedling*, *Lady Hunt*, and *Muscat of Alexandria* are very subject to scalding of the berries and foliage. To avoid this, lightly shade them. Weak lime wash syringed over the glass will answer the purpose. In some localities a deal of trouble is caused by mildew, which if not quickly dealt with will spread all

over the house, doing very serious damage. The best remedy is to dust the affected parts with flowers of sulphur. Avoid a stagnant atmosphere, unhealthy borders, and dryness at the roots. These are conditions under which mildew will thrive.

WINTER TOMATOES.—For obtaining a supply of fruits during the dull months of January and February seeds should be sown at once. Winter Beauty and Frogmore Selected are good sorts for this purpose. A light airy structure must be devoted to them if success is to be assured. Grow the plants as near the glass as possible, thus encouraging a sturdy habit. Do not let the plants suffer for want of repotting when they require it. Pots a size less than usual will be most suitable for this batch.

CUCUMBERS.—A batch of plants should now be raised for autumn supply. Dickson's All the Year Round is an excellent variety for autumn and winter use. The house should be thoroughly cleaned, and every crevice should be saturated with boiling water to destroy woodlice and other vermin. A hot-bed will be necessary on which to grow this batch. It should be well fermented and in readiness to receive the young plants when they are large enough to put out. Continue to encourage old plants to fruit by adding a little rich material to the surface as roots appear. Attend frequently to stopping and regulating the shoots. Use the syringe freely morning and afternoon. If red spider is present use an insecticide, and shade during the hottest part of the day. E. HARRISS.

Fruit Department, Royal Gardens, Windsor.

ORCHIDS.

CYPRIPEDIUMS.—The present is a good time to overhaul the section of Cypripediums which require the greatest degree of warmth, viz., C. Stonei, C. Parishii, C. laxigatum, C. praestans, C. Curtisii, C. rothschildianum, C. lawrenceanum, C. chamberlainianum, C. sanderianum, C. argus, C. ciliolare, &c., also a great number of hybrids which are far too numerous to enumerate in a weekly calendar. The majority of these Cypripediums have now recovered from the effects of flowering, and are making considerable progress with their new growths. They should be examined to see if any of them require additional pot room, or if it is desirable to increase the stock of any particular variety. Good-sized specimens may be divided into four or more portions. When placed in a suitable temperature nearly all of these Cypripediums grow fast, and quickly fill their pots with roots, therefore those who wish for strong flowering plants should, when repotting them, afford plenty of pot room for the proper development of both roots and growths. Pots two sizes larger are not too much for strong healthy growing plants. When repotting Cypripediums it is not necessary to raise them above the rim of the pots, as they will get on equally as well if potted just below the rim so as to allow a good space for watering.

THE POTS USED should be about half full of drainage, and for the larger specimens a compost consisting of rough fibrous peat, loam, and sphagnum moss in about equal parts, adding some broken pieces of brick or crocks to keep the soil free and porous. Mix the whole thoroughly well together. For the smaller plants use peat and moss in equal parts, with small crocks and a little silver sand. For a few weeks after repotting keep the compost on the surface just moist, but when the plants are re-established and are well rooted a thorough watering is required at least once a week, and on no account should they ever be allowed to get really dry. When closing the house each afternoon Cypripediums delight in a gentle sprinkling overhead with clear tepid soft water, but not so heavy as to fill the growths with water, or it may remain low down in the centres and in the axils of the leaves and cause them to decay. Place the plants on the shady side of the house, and well up to the roof glass, and if possible where they may obtain plenty of light without actual sunshine in order to prevent the young growths and leaves from being drawn up thin and weakly. In the

CATTLEYA OR INTERMEDIATE HOUSES there may also be a few species or hybrids which require similar attention. The rare C. superbians (Veitchii) grows very well in the Cattleya house. When grown in strong heat the foliage of this fine species is often disfigured by thrips. It will not thrive if exposed to the least clear sunshine; the leaves quickly change to a sickly yellow tinge. C. callosum and its variety Sandersi may also be repotted now.

A SPLENDID ORCHID now in bloom is *Oncidium macranthum*. It is a plant that, owing to the very long spikes and numerous large flowers, very quickly feels the effects of over-flowering. To preserve the plant and keep it alive, it is advisable to remove the spikes soon after the flowers are fully open. It is a cool-growing and moisture-loving species, and at this season, while in bloom and as the new growths advance, it should be kept well watered. All

THE THUNIAS have now done flowering, and the plants should be placed in a light, airy greenhouse, where they will consolidate their growth and gradually lose their leaves, and until these commence to change colour the plants require to be watered. After being in the greenhouse a short time some growers place the plants out of doors in a sheltered position but in full sunshine, and with very favourable results.

Burford Gardens, Dorking.

W. H. WHITE.

KITCHEN GARDEN.

WATERING BRASSICAS, LEEKS, AND CELERY.—All young plants of this kind must be kept well supplied with water, as any approach to dryness gives their growth a check, from which they never afterwards fully recover. The evening is by far the best time to give the plants water, and after this has been provided let a little dry

soil be sprinkled around the base of each plant to prevent the cracking of the soil next day; the sprinkling of dry soil will also aid in preventing evaporation in bright weather.

DUTCH HOING, constant stirring of the surface soil between the rows of recently-planted Brussels Sprouts, Cauliflower, Cabbages, &c., will always repay the cultivator, especially should the weather be bright and dry. By means of the hoe the surface is kept open and weeds are checked. While the operation is being performed, however, great care must be exercised in seeing that no soil is pushed into the centres of the young plants. The soil must be stirred close up to the neck of each plant, but without injuring stem or foliage. In many instances more harm than good has resulted from careless hoeing.

BROAD BEANS.—These should now have their tops cut off, thus hastening the maturity of the fruits, and having been shortened a little the plants are not so apt to be laid on the ground after heavy rains. Those sown some time ago should have the surface soil stirred up with the Dutch hoe, and a little earth drawn up to their haulms, picking up every weed as the work proceeds. Weeds loosened with either Dutch or draw hoe appear to seed as freely afterwards as if they had never been disturbed, the disturbance apparently aiding in scattering them about, especially in dry weather.

HERBS.—Beds of these now want attention; should dry weather prevail watering must not be neglected. Weeds must also be carefully searched for among close-growing foliage, for they exhaust the soil. The present is a good time to dry herbs for winter use. Basil, Marjoram, Sage, Thyme, &c., should be cut, if ready, and be dried in some shady place; any place where the glare of the sun is excluded will answer the purpose. After being properly dried they may be carefully placed in paper bags, each kind labelled and hung up in the fruit room, to be in readiness when wanted. Where seeds of Anglica are in request for flavouring purposes flowering shoots must be supported and weaklings drawn out, so that the best spikes may have light and air to mature their seeds. Borage may also be supported with a few short Pea-stake twigs fixed around each plant to keep them in proper position. Keep alleys free from weeds or straying herb plants by means of the Dutch hoe.

SPINACH.—A good sowing of this fine summer vegetable should now be made on rich and deeply-cultivated ground. No vegetable responds more readily to good cultivation than Spinach, and none presents a more starved and unsatisfactory appearance when grown on poor soil. Allow more room between the rows for this sowing than for former ones, as it remains on the ground until late summer, and will consequently need more light and air. Sutton's Round Spinach is a variety which, under good cultivation, stands a long time before showing symptoms of running to seed. J. JEFFREY.

The Gardens, St. Mary's Isle, Kirkcudbright.

THE FRUIT GARDEN.

NEW STRAWBERRIES.

MESSRS. LAXTON of Bedford are this season sending out two new Strawberries—Laxton's Reward and the Bedford Champion; indeed, under this heading

I can also include the new Laxton's Latest, as this variety was only recently given an award of merit by the Royal Horticultural Society. Messrs. Laxton kindly sent me plants for trial in October, 1903, so that after two seasons' growth by the side of older varieties I am able to note their merits. For years I have in these pages urged the importance of getting new Strawberries with the excellent Queen flavour, but with more vigour, also a later fruit with the free growth of the older Royal Sovereign.

Bedford Champion.—This was given an award of merit on the 4th inst. by the fruit committee of the Royal Horticultural Society, and it was well worthy of it, as on a thin, light, dry soil it crops freely. This new fruit may be considered too big, but so far, when sending fruit for dessert, I have not heard any complaints, for the good reason that the quality is excellent. Bedford Champion is well named. It is a good colour and a great cropper; the fruits are roundish and scarlet-

crimson, solid, and the leaves are not unlike those of Royal Sovereign, the plant throwing up a strong truss. It closely follows the last-named in ripening, so that it may be called a midseason variety. I have not forced it yet, but intend doing so next year, as I am much impressed with its free growth this season.

Laxton's Reward comes next, and this is very distinct. The fruit is not the same shape as Bedford Champion, being more wedge-like. It is the result of crossing Royal Sovereign and British Queen. It is not a late Strawberry, but a grand fruit for main crop supplies, with a good deal of the old Queen flavour. The flesh is red inside, solid, and a bright crimson outside. The plant is a free grower and sets its fruit well, there being an absence of small fruits, so that Reward may be classed as a splendid dessert variety, and one that will take the highest place for that purpose. Messrs. Laxton do well to use the old British Queen in their hybridising, and, by using a free grower like Royal Sovereign, they will doubtless have overcome the weak points in the old plant by getting greater vigour without loss of quality. This variety received an award of merit last year from the Royal Horticultural Society.

Laxton's Latest comes next, and in shape is not unlike Bedford Champion, but is a much later fruit. Here I think we have a great gain, as we have none too many really good late Strawberries, and the new one will become a great favourite. Though not as late as some may desire, it is a very excellent fruit, and, grown on a cool site, will be most valuable for trial purposes. Under a number I grew it on a south border, and even then it came in with Latest of All, so that it will be seen it is very late, the last-named being grown on a north border. This fruit is the result of crossing Latest of All and Waterloo, and it is a dark crimson of rich flavour and a free grower. The latter point is often wanting in late kinds. The foliage is good, and the plant much stronger than Latest of All. It is a good cropper, so that it will be a most profitable variety. This also received an award of merit on July 12, 1904, and will doubtless get a higher award when better known. G. WYTHES.

A GOOD LATE PRESERVING RASPBERRY—SEMPER FIDELIS.

SOME Raspberries are better for preserving than others, and the one named above is specially



A NEW STRAWBERRY—LAXTON'S BEDFORDSHIRE CHAMPION.
(Natural size.)

meritorious for the purpose named, and also for stewing or compotes. This variety is not so much grown in the north as the western and midland parts of the kingdom; indeed, it is not catalogued by many fruit growers, but it is well worth cultivation where fruit is required for preserving. I do not recommend it for dessert, as there are sweeter fruits, *Semper Fidelis* being of a slightly acid nature, a rich scarlet berry, which, when cooked, is a beautiful bright colour. What makes it more valuable is that it is a late continuous cropper and a very free grower, in this respect being superior to others. I think we may with advantage give such fruits as are valuable for cooking or keeping more room in the garden, as we get more value from such fruits at a season when choice sorts are scarce. *Semper Fidelis* is a great favourite with those who make a point of having excellent preserves in the winter season, but even when in a cooked state at this season it is excellent, because of its fine colour and rich flavour. G. WYTHES.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 5, Southampton Street, Strand, London. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

Legal Points.—We are prepared to answer questions of law which have anything to do with the subject of gardening and forestry. The questions should be as clear and explicit as possible, so that there can be no doubt as to the point of the question. Answers will be found in a separate column headed "Legal Points."

CUCUMBERS DISEASED (K. M. Hall).—Your best plan will be to try and keep the plants in bearing as long as possible if they are fruiting. To do this you should keep the house dry (the disease spreads rapidly in a moist atmosphere) and airy in the hope of checking the disease. You may syringe the house and the plants with a solution of potassium sulphide, 2oz. to 3 gallons of water, adding 2oz. of soft soap. Jeyes' Fluid should also be used on the paths. These measures will not kill the disease, but they will tend to prolong the life of the plants. If your plants are only young ones and are already attacked by the disease, you had better pull them up and burn them. Every bit of soil ought to be taken out of the house and replaced with fresh, or burn the old before using again. When the house is empty burn sulphur in it several times so as to kill any germs. The fumes are dangerous, so you must not, of course, remain in the house. Sulphur is conveniently burnt by being sprinkled upon hot coke placed in a flower-pot. Get seed from a fresh source—some good seedsman—and you will probably have good results. This disease is very difficult to stamp out; strong measures must be taken. It would be wise to grow another crop in the house before Cucumbers are planted again.

STRAWBERRIES INFESTED WITH SNAILS (Amateur).—During the last four years there has been a great increase of slugs all over Britain, according to the statement of the Board of Agriculture, and they have become a serious pest in many gardens. The greatest natural enemies of slugs are birds, especially thrushes, blackbirds, and

starlings. Toads also eat slugs and snails largely. The best thing to do is to use dry dressings of some irritant to kill them, as soot and lime, salt and lime, lime and caustic soda. The lime should be in a very finely divided state and quite fresh. Two or three dressings should be given, the second some fifteen to thirty minutes after the first. Lime and caustic soda acts best; four parts of caustic soda to ninety-six of lime, well mixed. Dry dressings should be applied very early in the morning. Land that is thoroughly foul with slugs should be treated with gas lime, and in the winter deeply trenched.

DISEASED POTATO TOP (Bridgnorth).—It is quite impossible to determine why one Potato plant, 4 feet in height, tops of which are sent, should show the blackened condition of leaves that is here seen. It is quite possible that the tuber from which the plant grew contained when planted nesting spores of the *Phytophthora infestans* fungus, that have but now become active, and the mycelium of which has passed through the sap cells into the leaves, and thus produced the blackened appearance seen. It would have been wise had you gathered and destroyed all the blackened tops of the plants at once to prevent the creation of spores, which increase with wonderful rapidity. If not done, do so at once, and burn the leaves. Also, as we have so often described its preparation, spray or gently syringe the tops of all your Potato plants with a solution of sulphate of copper and lime (Bordeaux mixture) at once, and again a fortnight later. The blackened leaves resemble a frost scorch rather than an attack of the ordinary Potato disease.

GROWING CERTAIN ORCHIDS (J. R. K.).—A very suitable compost for *Miltonia cuneata*, *Cattleya Trianae*, and *C. Mossiae* consists of two-fifths good fibrous peat, two-fifths good chopped sphagnum moss, and one-fifth leaf-soil, not too decomposed, and mixed well together with a sprinkling of small crocks and coarse sand. In each case a good drainage should be afforded, especially to *Miltonia cuneata*. The pot should be nearly half filled with the rhizomes from the peat, which should have been sterilised and placed over a few crocks. Pot moderately firm, keeping the compost low enough to allow of a surfacing of chopped sphagnum moss. The plants should stand on a stage covered with cocoa fibre refuse or on inverted pots. When the new growth on the *Cattleya* is completed water can be withheld to a large degree, only affording enough to prevent shrivelling till the flower-buds show in the sheath. At all times they should become moderately dry before giving more water. *Miltonia cuneata* always requires careful watering, and when the new growths have flowered, very little water will suffice till they start again into growth. The compost for *Dendrobium devonianum* should consist of equal parts of chopped peat and sphagnum. Give a thorough drainage, and use a proportionately small receptacle. Suspend in a hot humid house when making its growth, and water freely. When growth is completed a somewhat cooler and dryer house will be best. Remove all aerial growths, and pot them off separately.

DISEASED STRAWBERRIES (Craig).—The Strawberries were a mass of mildew, and this is caused in various ways, the most frequent one being crowding, and once the fungi or disease is present it spreads rapidly when the weather favours its growth. Some varieties of Strawberries are worse than others in this respect, and it also occurs more in enclosed areas and when there is rain after a protracted drought or warm weather. You say your plants are cropping freely and the young plants are quite free, whereas older ones are badly attacked. Here is the secret of the matter. The young plants have less top or foliage, and are more exposed; the older ones more crowded, and so soon suffer when the weather is unfavourable. Our advice

is to give more room between the plants if you can, say, a yard between the rows and half that distance between the plants. It is not the mulching, though excess in this way adds to the mischief, as it retains the damp. You say they are much worse where at all thick with foliage. This shows that more room is needed. You appear to have given good cultivation, with the result that they are growing freely and need more room. You would find it an advantage, if room is at all short, to plant a portion every year and destroy one. By this means you would have younger plants, larger fruit, and freedom from mildew, as after the second crop you would not keep the plants.

IRISES IN TURF (F. J.).—Much depends upon this one thing—Is it "turf" or woodland pasture grass? The two differ materially, the former is greatly consolidated by years of rolling and the like, which render it more or less unsuitable as a permanent place for plants, even of a vigorous type. On the other hand, the rougher grass of the woodland is in a more or less virgin state, and the growth of many plants is not only capable of piercing through the turf, but the bulbs and roots below ground have better opportunities for future development. Take up the turf over an irregular area, turn up the lower soil with a fork, roughly level the ground, arrange the bulbs thinly and cover 4 inches deep or so, finally relaying or, better still, replacing but one-half the turf lifted, and this in small patches the size of the hand. In certain instances, near the dwelling for example, this question of the turf may require modification, but even here we do not advise relaying whole turves in the ordinary way, because the resistance is too great for the plants below. A good deal depends upon circumstances, too, in these matters, and the nature of the subsoil in particular. We give you these hints for general guidance, and now come to the questions you submit. Treated as above the bulbous Irises named may be good for from one to three years, and they are longer-lived and more inclined to be perpetual in rather heavy soils if well drained. Many Flag Irises would do quite well, also *Iris aurea*, *I. Monnierii*, and others near akin to *Iris sibirica* in wet positions. Species of Tulips and Darwin Tulips with the more vigorous of the Gesner forms would all be excellent for some time, preferably in the drier positions and where deep soil is at hand. Other good things are the *Fritillarias*, *Alstroemerias*, *Camassias*, *Muscarias*, *Daffodils*, *Anemones*, *Eremuri*, Dog's-tooth Violets, *Chionodoxa*, &c.

ROSE RUST (A. P.).—The name of the Rose rust is *Uredo rosea*. It is a most troublesome fungus, and it may be said to be universal throughout Europe. It is recommended that the plants which have suffered from the disease should be drenched in early spring before growths expand with a solution of copper sulphate in water, and the soil also may be saturated.

RHODODENDRONS FROM CUTTINGS (E. M. H.).—Cuttings of the different hardy *Rhododendrons* are not at all easy to strike, and your greatest probability of success will be to take the cuttings now, forming them entirely of the current season's shoots, pulling them from their base by means of a side twist rather than cutting them. By now the shoots will be partially ripened, and in this condition they are more likely to root than in any other. If there are only a few cuttings they had better be put in pots, a nice size for the latter being 5 inches in diameter. They must be quite clean, and drained with broken crocks to one-third of their depth, the remainder being made up of peat and silver sand passed through a sieve with a quarter of an inch mesh. It is necessary to press this down very firmly, and in dibbling in the cuttings take especial care that they are made very secure, particularly just at the base. These must then be placed in a frame kept quite close and shaded when necessary, and in

addition the cuttings within the frame should also be covered with a hand-light or bell-glasses, thus keeping as much air from them as possible. Even under the most favourable conditions these cuttings will not root till next spring is well advanced, by which time it is probable there will not be many left alive, for, as above stated, they do not root at all readily, but by following the course above indicated we have rooted a few. The mode of propagation adopted in nurseries for the increase of the garden varieties of *Rhododendrons* is to graft them on to seedling stocks of *Rhododendron ponticum*, but this is a matter that requires experience and various appliances to carry out successfully. With regard to the appearance of the pink variety, it may possibly be a sport, or the *ponticum* may perhaps have been originally grafted, but by neglect have outgrown the scions, which have in most cases perished, the pink one above alluded to being the sole survivor.

CHERRIES FALLING OFF (*John Ekins*).—The small Cherry fruits sent have not properly "stoned," that is to say, the stone has not formed. As a consequence, instead of developing when the stoning period is over, as they should do, they fall off. They most probably had a check to growth in an early stage. This may have been due to dryness at the root or to an attack of red spider. We should say that the former is primarily responsible, and the latter may have contributed to the failure. The leaves and fruits have every appearance of having suffered from want of moisture. We are afraid that little or nothing can now be done to save the fruits. You might keep the tree well syringed every evening after a hot day, and keep the roots thoroughly well supplied with water. It is most important to attend to these matters when the young fruits are forming, and next spring and early summer you should take care that both leaves are well syringed and the roots well supplied with water. Give a mulch of well-decayed manure. That would also help now.

DISEASED PEA HAULM (*J. H. Burclay*).—The season for culinary Peas so far has been all one could desire. We never remember fuller crops, but the growths sent are very poor indeed; we will help you if possible to prevent its recurrence another season. It is not the season which is at fault, and as you suffered the same way last year it is evident that the culture is wrong. The seeds were sown early in May, and they appear for a time to have made a fair growth and then collapsed, and in ground that had grown Strawberries. Was the ground well prepared? This is important. We mean was it deeply dug, and what kind of manure was used, and if some time in advance of sowing? You say the ground was trenched, and this was right; but we also think the seeds were sown much too close. In good land each seed should have room to develop; take the Sweet Pea for a guide. A few years ago the seed was sown like Mustard and Cress. The result was the flowers were small and poor. Given ample room the plants produce grand flowers, and the same results follow culinary Peas. Given room the results are much better. We do not think moulding would prevent the flagging; the roots are quite rotten. Are you sure there are no wireworms in your soil that would cause the injury? Please carefully examine; if so, dress the land in winter with lime.

WHITE BANKSIAN ROSE BLIGHTED (*J. R. M.*). We are inclined to think that you have the spurious form of white Banksian, as we have never known the true double very fragrant variety to take mildew. There is a white form named *Fortunei*, which has a few spines or thorns upon its growths, and the flowers are much larger than those of the true *Banksia alba*. This latter is perfectly smooth wooded. We mention this because it may to some extent explain the appearance of the mildew. But as you say the plant loses its leaves during early summer, it is evident

the roots are not happy. Doubtless they have reached an uncongenial subsoil, which is the cause of the roots failing to act, consequently growth is arrested and leaves fall. We should advise you next October to dig a trench around the plant, and of such a depth as to allow you to undermine the roots without disturbing them too much. The subsoil could then be removed and a good cartload of nice fresh compost added. This should consist of three parts loam, one part well-decayed manure, and a fair sprinkling of half-inch bones. Should you find the subsoil wet and sour you could place some rough stones or clinkers beneath the plant before placing in the new soil. The trench that you have opened in a semi-circle fashion could then be filled up with good soil, using the best of that first removed with any other good material available. Many a decrepit Rose upon a wall or arch could be given a fresh lease of life if taken in hand as advised above—of course, carrying out the work during the resting period. Although the Banksian Roses are tender, they certainly ought to thrive in the aspect you have given your specimen. A good syringing with carbolic soap solution would keep the fly in subjection, and it would also check mildew. Syringe well in the evening.

LAND FOR VIOLETS (*E. M. Birtell*).—On land composed of a mixture of gravel and sand it would be impossible to grow Violets successfully without a very liberal addition of manure, leaf-soil, or peat. With these additions the land could be made suitable, but the expense, we fear, would be too heavy, and the experiment would be likely to end in loss. As regards the clay land, this is going from one extreme to the other, but we would prefer to deal with this soil rather than the other, provided it is well drained and it is possible to procure some opening material cheap in the neighbourhood by which it can be aerated and lightened. We mean such materials as road scrapings, ashes, and manure. Even with a liberal application of these materials it would take a long time to produce a friable, easy working soil, and we do not think the prospect of flowering Violets for sale on such land holds out any great hope of success. But why select these extremes in soils? Far better would it be to select a bit of land with soil of good depth and moderately heavy texture, such as is to be found in the neighbourhood of Slough or Iwer in Bucks. If our correspondent has little or no practical knowledge of the subject, she had better by far secure the assistance of a competent man to help her in the selection of the land. It may make all the difference between success and failure in the end.

GROWING MALMAISON CARNATIONS (*Miss D.*). These should be layered about the middle of July or a week or so later, the operation being best carried out in the following manner: Take an ordinary garden frame and plunge the plants that have done flowering therein in a porous compost made up of loam, leaf-mould, fine charcoal, and coarse silver sand. The plants should be plunged at a sufficient distance apart to allow of layering being carried out. Then select the shoots for layering and thin out any weak ones. The others must have the lower leaves stripped off; then with a sharp knife cut through a joint and peg the layer into the soil at the incision, pressing the compost firmly around each layer. They must be shaded from bright sunshine, and great care is necessary in applying water to them. This necessitates keeping them in a frame, otherwise heavy rains would soon cause injury. In three weeks or a little more they will be sufficiently rooted to pot up into 4-inch pots, which must be quite clean, dry, and thoroughly drained. A suitable compost may be made up of two or three parts of loam, according to its consistency, one part leaf-mould, and one part rough silver sand and crushed charcoal. A slight dusting of soot in the compost is also beneficial. The layers should be taken up with a good amount of soil adhering to the roots,

which are very delicate; hence in potting, which must be done very firmly, great care is necessary. A small stake should be used to support each plant, and then a good watering must be given through a fine rose in order to settle everything in its place. After this especial care must be exercised in watering till the roots are active, but in all stages Malmaison Carnations are very quickly injured by an excess of moisture at the roots. When potted the plants should be stood on a firm ash bottom in the frame, which must be kept rather close and shaded for a few days, in order that the roots recover from the check of removal, and after this plenty of air should be applied, the lights being kept off in fine weather. Given careful attention in all these matters, the plants will before the end of September be ready to shift into their flowering pots, 6 inches in diameter. For this last shift the major portion of the compost must consist of good fibrous loam, lightened by an admixture of rough silver sand, mortar rubble, and charcoal. Whether any leaf-mould is added will depend upon the consistency of the loam, but a sprinkling of soot is beneficial. When potted the plants should be removed to their winter quarters, a light, airy, but not lofty, structure. No more fire-heat than is necessary to keep out frost should be applied, and a free circulation of air whenever possible kept up. The plants will thus remain in a comparatively quiescent state during the winter, but with the roots gradually taking possession of the soil they are ready to start away in the spring. As the flower-stems commence to develop a little weak liquid manure and soot water combined is very beneficial. A more or less rigid system of disbudding is necessary, its severity depending upon circumstances, that is, whether very large or medium-sized flowers are desired. By following this course of procedure you should have a good display of these popular flowers next year. Aphides are often troublesome, and in order to keep them in check an occasional vapourising with the XL All Vaporiser will be of great service. Strict attention to watering, cleanliness, and circulation of air are very important items in the successful culture of these Carnations.

CRIMSON RAMBLER (*C. Innes*).—You do not say whether your plant was from a pot or not. If from a pot the ball of earth should have been loosened with a pointed stick to release the roots a little and then soaked in water before planting. If a plant from the open ground was planted there should have been signs of new growth from the eyes or buds before this. Of course, the cold weather has retarded vegetation very considerably. Try syringing the shoots before 8 a.m. and after 5 p.m. each day. When we obtain warm rains the plant will start into growth. It would have been far better had you cut back the plant to at least half its length, and even to within a foot of its base would be better still. This induces new strong growths, which, in a vigorous plant, extend to a great length, then next year such shoots would be covered with sprays of blossom. Cow manure and soot should be applied in liquid form at this season of the year. We do not advocate mulching Rose beds during summer unless the soil is very light and resting on gravel, and even then we should not use cow manure. This manure is very good applied to the surface in November and dug in at once; but many Roses are killed by the summer mulching with cold, soddened manure. A good plan to employ this manure now would be to put a bushel of fresh manure into a porous bag and a peck of soot into another bag; place both in a cask holding about fifty gallons of water, or, better still, into a brick cesspool, which many rosarians make in an out-of-the-way part of the garden. This cesspool could be covered over and be available to take house-slops, the whole making a good and cheap stimulant for the Roses. If the plants are well established they may be watered with the liquid about half strength, but do not apply if the ground is dry. First give a watering of clear water.

CAMPANULA PYRAMIDALIS (*Miss Freeling*).—We can trace no disease in the leaves sent, and have, therefore, concluded that soil-poverty or this, in conjunction with extreme dryness at the root, is the cause of the failure. At the time of throwing up the flower-spike and until the blossoms expand, there is a great strain upon the plants' resources, which, judging by the paleness of some of the leaves, has not been met. Try abundant watering and weak liquid manure another time, and plant in well-manured soil.

NAMES OF PLANTS.—*F. P.*—1, *Galega officinalis alba*; 2, *Lavender Cotton* (*Santolina Chamæcyparissa*).—*Fifer*.—1, please send again in better condition; 2, *Carissa carandas*; 3, send when in flower; 4, *Acokanthera spectabilis*.—*Mr. Marland*.—*Amelanchier canadensis*.—*A. W. A.*—1, *Tulip tree* (*Liriodendron tulipifera*); 2, *Tilia platyphyllos* var. *asplenifolia*; 3, *Taxodium distichum*; 4, *Geranium sanguineum*.—*G. Howell*.—*Raphiolepis ovata*.—*A. L. Ford*.—The *Jasmine* is *Jasminum humile*, and the *Poppy* *Papaver rapifragum*.—*W. Wooderson*.—1, *Epacris longiflora*; 2, material insufficient; 3, *Sedum album*; 4, *Davallia canariensis*; 5, *Pellaea viride*; 6, *Adiantum excisum* var. *nanum*; 7, *Aspidium falcatum*; 8, material insufficient; 9, *Vitis Labrusca*; 10, *V. inconstans*; 11, *Marrubium vulgare*; 12, *Jasminum fruticosum*; 13, *Scabiosa caucasica*; 14, *Elymus arenarius*; 15, *Escallonia macrantha*; 16, *E. rubra*; 17, *Carex vulgaris*.—*W. West*.—1, *Elæagnus macrophylla*; 2, *Cotoneaster* sp.; 3, *Deutzia crenata candidissima plena*; 4, withered; 5, *Sedum Telephium*; 6, *Mimulus cardinalis*; 7, too small to name; 8, probably *Berberis stenophylla*.—*E. K. F.*—Probably a Hybrid China Rose, but which we are unable to say.—*C. J. McD.*—*Rosa ferruginea* (*rubrifolia*).—*W. S.*—1, *Habenaria bifolia*; 2, *Orchis maculata*; 3, *Hemerocallis flava*; 4, *Spiraea filipendula* fl.-pl.; 5, *Ulmia fl.-pl.*; 6, *Geranium pratense*, dark variety.—*Veld.*—1, *Scutellaria galericulata*; 2, *Senecio Jacobæa*; 3, *Euphorbia Cyparissias*; 4, *Galium Mollugo*; 5, *Nasturtium officinale*; 6, *Trifolium arvense*; 7, *Ruta graveolens*.—*F. H. Manley*.—*Phacelia tanacetifolia*.—*G. H. B.*—1, *Sidalcea candida*; 2, *Malva moschata* (*Musk Mallow*); 3, annual *Chrysanthemum* var.; 4, *Hieracium aurantiacum*; 5, *Campnula latifolia*; 6, *Polemonium ceruleum*; 7, *Allium flavum*; 8, *Geum chilense*.—*E. J. Peck*.—1, the grass is a viviparous form of *Poa trivialis*. It frequently occurs in several grasses, including the common Cocksfoot Grass (*Dactylis glomerata*), *Aira cespitosa*, *Poa alpina*, and others; 2, many species of *Viola* have a fleshy rhizome.—*Ficus*.—1 and 2, forms of *Catananche cerulea*; 3, apparently *Veronica sylvatica*, but the flowers had dropped; 4, *Crotonoma elegans*; 5, *Adiantum elegantissimum*; 6, *Cytomium caryotideum*.—*C. L. D.*—1, *Bignonia speciosa*; 2, *Quisqualis indica*; 3, *Brumfelsia confertiflora*; 4, *Phyllanthus nivosus*.—*Hopp*.—1, crushed; 2, *Malva moschata*; 3, *Tecoma jasminoides*.—*F. P.*—1, *Cotoneaster affinis*; 2, the common Chestnut (*Castanea vesca*).—*A. C. E.*—1, *Retinospora squarrosa*; 2, too small to name; 3, *Epilobium angustifolium*; 4, *Fetunia*; 5, *Coleus*. Cannot name as they are garden varieties.—*S. H. B.*—*Lonicera involucrata*.

SHORT REPLIES.—*W. T.*—Preferably in winter, while the hedge is leafless, if it is in a condition requiring hard pruning, and it may be cut as much into the hard wood as you like, as the Thorns will break into new growth in many places when headed back hard. If it is a hedge requiring trimming merely with shears, this may be done at any moment convenient to yourself. These woody subjects are very hardy, and rarely, if ever, suffer from pruning or cutting at any season.—*R. K. H.*—There is no book, as far as we are aware, on saving the seeds of flowers, but the subject is treated in many works on horticulture. —*J. W. L.*—Very probably the plant is a cross between the two, as it has the characteristics of both species. —*A. J.*—Under the conditions you mention about £40 would be a fair estimate for the cost of gravelling carriage drive; of course a lot depends on the cost of labour in your neighbourhood, cost of carting, and the way the men work. —*A. J.*—The present is a very good time to prune Holly, Yew, and Evergreen Oak, any time within the next two months will do very well.

PRIZES OPEN TO ALL.

PLAN OF A FLOWER BORDER.

A FIRST PRIZE of *Five Guineas* and a second prize of *Two Guineas* are offered for the best plan of a border of hardy perennials, 130 feet long by 10 feet wide, drawn to a scale of a quarter of an inch to a foot; bold grouping and good arrangement for colour and succession to be the main considerations. Half-hardy annuals and biennials may be included. The names of the plants to be written in their spaces on the plan—not referred to by letter or number. This competition remains open until the last day in September.

PRIZES FOR GARDENERS. JULY.

OPEN TO ALL.

GARDENING IN TOWN AND SUBURB.

A First Prize of **FOUR GUINEAS**,

A Second Prize of **TWO GUINEAS**,

A Third Prize of **ONE GUINEA**,

And a Fourth Prize of **HALF-A-GUINEA**

are offered for the best answers to the following questions.

I.—Mention the names of the twelve Roses which grow and flower most freely in the suburbs of large towns.

II.—Describe the way you would plant a shady border in a town garden to get the prettiest spring and early summer effects.

III.—Name the class of tree or shrub that cannot be grown with success near large towns.

IV.—What shrubs would you select for planting in such gardens? Give the names of the best six.

V.—Why is it that plants with rough leaves are not, as a rule, a success near large towns?

VI.—Name twenty different hardy plants that are quite happy in town gardens, almost as much so as in the country.

VII.—Name the six foliage plants that succeed best in the rooms of a suburban house.

VIII.—Name the best six climbing plants for a town garden.

Answers to these questions, written on one side of the paper only, must be addressed to The Editor of THE GARDEN, 20, Tavistock Street, Covent Garden, London, and the envelopes marked "Competition." They must reach here not later than the 31st inst. The Editor cannot undertake to return the MSS. of unsuccessful contributors.

SOCIETIES.

MANCHESTER ROSE SHOW.

THIS exhibition was held on the 15th inst. in the gardens of the Royal Botanical and Horticultural Society in charming weather, and was patronised by an immense crowd.

NURSERYMEN.

Sixty distinct, single trusses: First, Messrs. A. Dickson and Sons, Newtownards, the variety *George Dickson* being the premier bloom of the show; second, Mr. Hugh Dickson, Belfast, with excellent blooms; third, Messrs. R. Harkness and Co., Hitchin. This stand contained the premier Tea, *Ernst Metz*.

Thirty-six distinct: First, Mr. Hugh Dickson; second, Messrs. A. Dickson and Sons, with smaller blooms; third, the King's Acre Nursery Company.

Twenty-four Teas or Noisettes: First, Mr. George Prince, Longworth, Berks, having good blooms; second, Mr. J. Mattock, Oxford. For twelve Teas or Noisettes Mr. G. Prince was again successful. Messrs. John Jeffries and Son, Cirencester, and Messrs. A. Dickson and Son won the remaining awards.

Twelve single trusses, any white or yellow: First, Mr. G. Prince, with *White Maman Cochet*; second, Messrs. James Townsend and Sons, Worcester, with *Bessie Brown*; third, Messrs. J. Simpson and Sons, with *Frau Karl Druschki*. Twelve light, any other than white or yellow: First, Mr. J. Mattock, with *Bessie Brown*; second, Messrs. A. Dickson and Sons, with *Mildred Grant*; third, Mr. G. Prince. Twelve crimson: First, the King's Acre Nursery Company, with *Alfred Colomb*; second, Messrs. Dickson and Sons, with *A. K. Williams*.

AMATEURS.

Twenty-four distinct, single trusses: First, Mr. E. B. Lindsell; second, the Rev. J. H. Pemberton; equal third, Mr. Conway Jones, Gloucester, and Mr. W. Boyes, Derby. There were seven lots staged.

Twelve distinct blooms: First, Mr. R. Foley Hobbs, Worcester; the Rev. J. H. Pemberton, second; Mr. E. B. Lindsell, third. Eighteen Teas or Noisettes: First, Mr. Conway Jones; second, Mr. R. Foley Hobbs; third, Mr. R. Park, York.

For twelve Teas or Noisettes, distinct, the prizemen were Messrs. Conway Jones, R. Foley Hobbs, and W. Boyes. Twelve single trusses, any white or yellow: First, Mr. R. Foley Hobbs, won with *Bessie Brown*; second, Mr. E. B. Lindsell, with *White Maman Cochet*; third, the Rev. J. H. Pemberton, with *Frau Karl Druschki*. Twelve any other light Rose: First, Mr. E. B. Lindsell, with *Maman Cochet*.

Messrs. C. Burgess, S. Hardern, R. Hall, and Joseph Holt were the prize takers in the classes for district-grown Roses.

OPEN.

For a display of Roses Mr. G. Prince was a good first.

SWEET PEAS.

For the best collection Messrs. Goodlen and Fletcher secured the society's silver-gilt medal with about eighty bunches. For twelve bunches (amateurs) the winners were Messrs. F. Smith, W. Haslam Cross, and T. A. Earle.

NON-COMPETITIVE.

Messrs. G. Gibson and Co., Bedale, were awarded the society's gold medal for a beautiful selection of herbaceous cut flowers and Roses. Other exhibits included Sweet Peas from Mr. J. Derbyshire (about 140 vases); herbaceous cut flowers and Roses from Messrs. Dicksons, Chester (silver-gilt medal); Sweet Peas and Roses from Messrs. Caldwell and Sons, Knutsford (silver medal); Carnations and Roses from Messrs. Frank Dicks and Co.; and a collection of Carnations from Mr. J. Robson (silver medal).

The arrangements, as usual, were admirably carried out by Mr. P. Weathers, the curator.

FORMEY SHOW.

THIS excellent show was held on the 12th inst. at Briars Hey, by the kind permission of Mrs. F. A. Rockliff.

For twelve varieties of Roses Mr. B. Kennedy was the winner. His Mrs. E. Mawley secured the National Rose Society's silver medal as the best bloom in the show. For twelve blooms, six varieties, Mrs. Rockliff was first. For six distinct, Mr. A. E. Gunson won. For six light blooms, Miss M. A. Rimmer was first. Other first prize winners were Messrs. E. Hacking, Luther Watts, E. H. Bushell, B. Kennedy, and the Rev. J. B. Richardson. Messrs. F. W. Passmore and W. Dodd were winners in the smaller classes, Mr. Dodd securing the silver medal for the best bloom with *Bessie Brown*. In a strong contest Mr. Edgar M. Allen secured the silver cup for twelve bunches of Sweet Peas. For decorated tables the three awards went to Mrs. H. Page, Miss Agnes Rimmer, and Miss Jones. Plants, fruits, vegetables, and flowers were of considerable merit. Amongst the non-competitive exhibits were Roses from Messrs. A. Dickson and Sons, Limited, Newtownards; Mr. H. Middlehurst, Sweet Peas; Messrs. Thomas Davies and Co., herbaceous cut flowers; Messrs. Woodward and Co., cut flowers.

HANLEY FLOWER SHOW.

THE ninth exhibition was held on the 5th and 6th inst., and proved a most successful one. Messrs. W. J. Townsend and Co., Worcester, won the chief prize in the Rose classes, the first prize for seventy-two distinct varieties. Messrs. Townsend were first in several other Rose classes also. Messrs. Gibson and Co., Bedale, had the best display of hardy flowers. Sweet Peas were an excellent feature, the first prize for twelve varieties being won by Mr. A. G. Holford, Ecclesden. Mr. Holford also won first for the prizes offered for Sweet Peas by Mr. R. Sydenham. Mr. Peter Blair, Trentham Hall Gardens, was first for a group of Carnations in pots with some splendid plants. Messrs. Cypher, Cheltenham, were first for a collection of Orchids, for a large group of plants, and for specimen plants.

Mr. J. H. Goodacre was first for a decorated dessert table; second, Mr. Dawes, Temple Newsam Gardens; third, Mr. J. Read, Bretby Park Gardens. Mr. Goodacre won first prize for twelve dishes of fruit, and for six dishes Mr. T. Bannerman was first. In the Grape classes there was keen competition, the chief prizewinners being Mr. Bannerman, Mr. R. Dawes, and Mr. Nisbet. There were many non-competitive exhibits.

NORWICH ROSE SHOW.

THIS annual fixture, held under the auspices of the Norfolk and Norwich Horticultural Society, took place on Thursday, the 6th inst., at Pine Banks Gardens, Thorpe, the residence of Mr. E. J. Caley. Unfortunately, the date coincided with the National Rose Show at Regent's Park, keeping many of the large trade exhibitors away, which was the cause of a large decrease in the number of Rose blooms staged. Messrs. Burch of Peterborough took the two premier open class prizes, and Miss Penrice of Witton, near Norwich, the championship bowl for Norfolk; Mr. Regd. Steward, Saxlingham, Norfolk, an amateur rosarian of local repute, secured both the National Rose Society's medals with *White Maman Cochet* for Tea and *Frau Karl Druschki* for Hybrid Perpetual. For miscellaneous cut flowers one large tent was set apart, and this was filled with exhibits. Without any doubt the best display were the 48 distinct bunches of hardy perennials set up by Mr. G. Davison from Westwick House Gardens. Mr. Smith, gardener to Mr. E. Fellowes, Shotesham, was a large exhibitor and prize winner in this section, as was also Mr. W. Chettleburgh, gardener to Colonel Rous, Weststead House. Carnations, Irises, flowering shrubs, exotic flowers, hardy and half-hardy annuals, and many other subjects had classes to themselves, and were well contested. In the pot plant class, which also covered a wide range, the *Ruchias* staged by Mr. Woodhouse, gardener to Dr. Osborne, The Grove, Old Catton, Norwich, were the most prominent feature.

The fruit classes were not so strongly competed as one might have expected. Strawberries were shown best by Mr. W. P. Wright, gardener to Mr. W. J. Birkbeck, Stratton Strawless Hall, and Mr. W. Chettleburgh was prominent as a winner for Peaches and Grapes. Vegetables and salads completed the list. The day was ideal, and the show was visited by 4,135 persons, with a gate revenue of £105.

Messrs. Hobbies, Limited, Dereham, set up a charming display of Roses and Carnations, at once attractive to the eye and of educational merit. Rambler Roses, Teas, and Hybrid Teas were all at their best. The leading Carnations for pot culture were exhibited as grown, showing the way to treat them. Messrs. Daniels Brothers, Limited, Norwich, set up pot plants and cut flowers to great advantage, their zonals of the newer type and the new Lobelia tenuior coming in for much admiration. Their Sweet Peas were a sight to be remembered, and the new plants of the herbaceous border were well represented. Messrs. Stark and Sons staged Sweet Peas and Heucheras with graceful effect, including one or two new kinds of their own crossing.

EAST ANGLIAN HORTICULTURAL CLUB.

At the monthly meeting of this club, held at the Shirehall Hotel, Norwich, on the 13th inst., the attendance was rather smaller than usual. Mr. J. Powley and Mr. T. B. Field (Ashwellthorpe) occupied the chair and vice-chair respectively. Four essays were sent in and read in a competition for prizes given by Messrs. Daniels Brothers, Limited, Norwich, upon "The Naturalisation of Bulbs, &c." The competitors had all treated the subject well, the prizes going as follows: First, H. B. Dobbie, Thorpe; second, A. F. Cooke, Norwich; third, C. H. Fox, gardener to Sir E. B. Mansel, Old Catton. Mr. T. B. Field was also a contributor, and had departed from the somewhat methodical ways of planting, dwelling upon true wild effects with beauty of colour. Mr. E. Peake, who, as one of the judges, led off the debate, said that he was very pleased with the way the subject had been treated. Although Mr. Field did not take a prize, his paper was of a very educational character. The debate was well maintained.

Prominent upon the exhibition tables were herbaceous flowers in variety, from Mr. C. Birtenshaw, gardener at St. Helen's House, Norwich; Brugmansia blooms, from Mr. W. Rush, Thorpe; and a new seedling early-flowering Phlox, from Mr. George Davison, Westwick, the latter receiving an award of merit. Messrs. Daniels Brothers offered prizes for their Metchless Marrow Peas, and the pods exhibited by Mr. E. C. Ramus and Mr. George Moore of Hethersett were perfection. Roses and other cut flowers went to make a bright display, special mention being due to a bunch of superb Sweet Peas set up by Mr. F. Williams, gardener to Louis Tillett, Esq., M.P., Old Catton. Messrs. H. Perry, G. Davison, and H. Goude judged the competitive exhibits. Mr. W. C. Easter explained the new microscope to the members. This should prove a great boon to such a club.

ROYAL HORTICULTURAL SOCIETY.

NEW PLANTS AT THE CHELSEA SHOW.

AN award of merit was given to each of the following:

Thalictrum Delavayi.—A very pretty species with deep mauve-coloured sepals, having a drooping or nearly bell-shaped outline. The glaucous deflexed leafage is very distinct, and, surmounted by the pretty bells, makes a very charming plant. From Messrs. R. W. Wallace and Co., Colchester.

Betonica spicata robusta.—A familiar hardy perennial, best known, perhaps, as *B. stricta* or roses. The flowers are produced in a close pyramidal spike, and are rosy pink in colour. From Mr. Amos Perry, Winchmore Hill.

Caladium Colonel John Hay.—A very handsome variety, the rosy-scarlet, red-veined leafage amply and irregularly spotted with white. The variety is a most distinct one, even amid the endless variety of colouring in these plants. From Messrs. J. Laing and Co., Forest Hill.

Begonia Water Lily.—A nearly pure white variety, the centre of the flower assuming the bud shape not unlike a Rose. It is a large and handsome flower, and the name is suggestive of its form. From Messrs. T. S. Ware, Limited, Feltham, Middlesex.

Begonia Mrs. Arthur Paget.—A fine pale salmon-coloured variety, the broad, slightly-undulating petals deeper in colour at the margin, the central petals opening nearly white. It is a fine and handsome variety, distinct and striking. From Messrs. T. S. Ware, Limited, Feltham.

Carnation Miss Willmott.—A fine rose-scarlet border variety, the flowers large, the petals spreading, nearly flat, and giving a most impressive effect as a whole. From Mr. James Douglas, Bookham.

Croton Edmontoniense.—This fine Croton is the result of crossing C. Warreni and C. Gordoni, and partakes strongly of the general habit and colour of the latter, with somewhat, also, of the colour and the corkscrew foliage of C. Warreni. As a decorative plant and a fine subject for table work it is one of the best things we have seen. Raised and exhibited by Mr. H. B. May, Edmonton.

AWARDS.

In addition to the gold medals mentioned in our last issue, the following awards were also made:

Silver Cup to Leopold Rothschild, Esq., the Lady Harmsworth, L. Currie, Esq., Messrs. Carter, Messrs. Bunyard, Messrs. Barr, Messrs. Ware, Messrs. Paul and Son, Messrs. Cripps, Messrs. Jackman, Mr. Amos Perry, Messrs. Bull, Mr. J. Hill, Messrs. Blackmore and Langdon, and Mr. David Russell.

Silver-gilt Flora medal to Sir F. Wigan, Bart., Reg. Farrer, Esq., Mr. H. J. Jones, Mr. M. Pritchard, Mr. L. R. Russell, Mr. Box, Messrs. Hugh Low, Messrs. Pulham, and Mr. Riley.

Silver-gilt Banksian medal to Messrs. Jones and Sons, Messrs. G. and A. Clark, Messrs. Peed, Messrs. Cheal, Mr. A. F. Dutton, Messrs. W. Wood and Son, Manifattura di Signa, Messrs. Merryweather, Messrs. Castle, and Messrs. Champion.

Silver-gilt Knightian medal to Mr. Mortimer.

Silver Flora medal to E. Wagg, Esq., Messrs. Laing, Messrs. Cannell, Mr. Breadmore, Mr. Reuthe, Messrs. Hobbies, Mr. Ladham, Mr. Bath, Mr. V. Slade, Messrs. Reamshot, Messrs. Fromow, and Messrs. Liberty.

Silver Knightian medal to Miss Hopkins, H. P. Sturgis, Esq., Messrs. B. S. Williams, Mr. J. Forbes, Mr. Penwill, Messrs. Stark, Mr. Jas. Douglas, Mr. F. Unwin, Messrs. Gilbert, Mr. Gwillim, Mr. Bentley, Messrs. Cory and Co., Messrs. Dolland, Messrs. Shanks, Mr. Dowell, Anglo-Continental Company, Messrs. Doulton, Mr. J. K. King, Mr. Jas. George, Messrs. T. Green, Mr. W. Herbert, Mr. T. Syer, Mr. J. Williams, Messrs. de Luz, Mr. Sage, Mr. Pinches, and the Economic Fencing Company.

THE FORTNIGHTLY SHOW.

There was a very interesting show on Tuesday in the Royal Horticultural Hall.

FLORAL COMMITTEE.

Present: Mr. Marshall (chairman), and Messrs. George Nicholson, James Walker, J. Green, C. J. Salter, J. T. Bennett-Poe, George Paul, E. Hooper Pearson, Harry Turner, Charles Dixon, H. J. Jones, William Cuthbertson, W. P. Thomson, E. H. Jenkins, W. J. James, Herbert J. Cuthbush, J. F. McLeod, J. Jennings, E. T. Cook, and George Gordon.

A large and interesting group of hardy plants from Messrs. Veitch and Sons, Limited, Chelsea, included fine examples of *Astilbe Davidii*, with many spikes of flowers; *Buddleia variabilis veitchiana*, in splendid condition; *Lilium sutchuenense*, a red-flowered kind copiously spotted, with the leafage of *L. tenuifolium*; it is a handsome free flowering and dwarf kind; *Lilium bakerianum* (Lewi) displayed its variability in the coloration of the flowers externally, and equally in the density of the spotting internally; *Astilbe grandis* is a very striking plant, white flowered, and a good companion to *A. Davidii*; *Erica cinerea rosea* and some *Ceanothus* were also remarked. A bold water-side plant is *Senecio ligularis speciosa*, a giant of 6 feet high or more.

Messrs. Barr and Sons, Covent Garden, contributed hardy plants in the more showy kinds. Day Lilies, Water Lilies, white Scabious Lilies, and spikes of *Acanthus* were prominent.

Gloxinias of a very good strain were staged by Messrs. Cannell and Sons, Swanley, in which the spotted kinds were particularly good. The plants, arranged among Ferns with a background of *Kuchia scoparia*, were very pleasing.

Messrs. Blackmore and Langdon, Twerton Nurseries, Bath, contributed in Bamboo tripods a beautiful lot of border Carnations. Richness, a yellow ground kind, was most prominent, some three fine vases of these being included in the exhibit, the flowers all from the open ground. Lady Bristol, pale yellow, with light margin, and Mrs. Ward, were other good yellow ground kinds in this lot.

Messrs. Veitch and Sons, Limited, Chelsea, filled a large table with Tree and border Carnations in pots. In the former we noticed the well-known white varieties Mrs. Brooks and Queen Louise, also William Robinson (scarlet), Enchantress, and Mrs. T. W. Lawson. In the border kinds there was a fully representative lot. A glorious exhibit of *Solanum Wendlandii*, from Costa Rica, with huge trusses of pale mauve, nearly 2-inch wide blossoms, was a most fascinating exhibit, and in company with *Exacum macranthum* (intense violet), and *Calceolaria integrifolia* was very distinct, the entire lot forming a most interesting exhibit.

Crotons from Mr. H. B. May, Edmonton, were very fine, a whole table being occupied with plants delightful in colour, and superbly grown.

Messrs. Wallace and Co., Colchester, staged a showy group of hardy things, in which such Lilies as *testaceum*, *Henryi*, *tigrinum*, *chalcodoneum*, *maculatum*, *pardalinum*, *excelsum*, and *odorum chinense* (a very fine and distinct form), *Lythrum*, *Lychnis chalcodonea*, Day Lilies, *Calochortus*, *Eurotia speciosa*, *Astilbe Nuee Rose*, with *Anthemis Kelwayi*, were all good items in this exhibit.

The Carnations from Mr. A. F. Dutton, Iver, Bucks, were a superb lot, equalling those recently shown at Chelsea. Displayed with his usual excellence and good taste, Mr. Dutton has become quite an adept in exhibiting these flowers, and his exhibits always command attention.

Messrs. Cannell and Sons, Swanley, showed Shirley Poppies in their charming variety. *Antirrhinum Fire King* and *Dance* were also from this firm.

The Carnations in vases from Messrs. T. S. Ware, Limited, Feltham, were very pleasing and well arranged. The new white perennial Pea White Pearl was in perfect condition.

Messrs. William Cuthbush and Son, Highgate, showed Carnations in superb fashion, tall vases having a ground-work of dwarfier vases filled with the best kinds.

We were especially impressed with the new Pink Malmaison Duchess of Westminster, a most charming shade of pink, and King Arthur, a scarlet-red border kind.

A superb lot of border Carnations were from Mr. James Douglas.

Mr. M. Pritchard, Christchurch, showed hardy flowers very finely, masses of *Alstromeria*, *Phloxes*, *Gaillardias*, *Astilbes*, and other things in season. *Campanula Isabel*, in a large mass, was very effective, the deep violet-blue flowers very striking.

Messrs. W. and J. Brown, Stamford, showed Roses and *Cactus Pelargonium* in variety.

Misses Hopkins, Mere, Knutsford contributed hardy plants, mostly of the more showy kinds, in which some good *Gaillardias*, *Lychnis chalcodonea*, *Heliopsis*, and other things were seen.

Border Carnations in pots came from Messrs. Phillips and Taylor, Bracknell, Berks. There were some two or three dozen kinds shown in this way.

Messrs. Hugh Low and Co., Enfield, contributed Tree and border Carnations in mixed array, quite a representative lot being staged in each section.

Hardy flowering plants in variety were well shown by Messrs. J. Cheal and Sons, Crawley, some good *Phloxes* and Sweet Peas being noticed.

An excellent array of single Hollyhocks came from Lady Phillimore, Campden Hill, W. (gardener, Mr. Becht). Many shades of colour were included in the varieties shown.

Hardy flowers and Roses were freely shown by Lady Harmsworth, Guildford (gardener, Mr. Goatley).

A charming series of *Violas*, the miniature or alpine *Violas*, formed an exhibit from Mr. Howard H. Crane, Woodview Terrace, Highgate. These are indeed a charming race of plants. Rock Blue, Queen of the Year, Pigmy, Forget-me-not, Quail, *Violas*, and *Cymbeline* were all charming and distinct.

Messrs. J. Peed and Sons, West Norwood, had a group of Carnations with *Acers*, *Hildegard*, a white border kind, being very good.

Mr. Ferguson, The Hollies, Weybridge, showed a beautiful group of *Campanula Fergusoni*.

NEW PLANTS.—AWARDS OF MERIT.

Senecio ligularis speciosa.—A fine plant for waterside gardening, the yellow starry blossoms are borne on stout stems some 6 feet high, the latter springing from a tuft of roundly petate leaves. From Messrs. Veitch and Sons.

Astilbe grandis.—A fine introduction from Western China, the russet coloured stems some 7 feet high, from which horizontally disposed spikelets of white blossoms are irregularly produced. When established this will prove a very striking plant. From Messrs. Veitch and Sons.

Lilium sutchuenense.—A very charming Lily, 2½ feet high, the recurring flowers of a brilliant scarlet orange, copiously spotted with maroon. The long linear acute leaves are disposed in a nearly horizontal manner on slightly downy stems. A most beautiful and elegant species, and quite a valuable addition to the dwarf members of this genus. Each of the above came from Messrs. Veitch and Sons, Limited, Chelsea.

Phlox Doreen.—A very beautiful salmon pink variety, with blossoms of large size, and a goodly sized panicle withal. From J. Bradshaw, Esq., The Grange, Southgate (gardener, Mr. Whitelegg).

Carnation Viscountess Ebrington.—Pale buff, the flowers of large size and very full.

Carnation Liberte.—A very heavy crimson flaked variety on yellow ground, the flowers of very large size and shapely withal. These two were from Mr. James Douglas, Great Bookham.

Adiantum Mayi.—This is a seedling from *A. fragrantissima*, and is a most charming and delicate kind, the small fronds representing the finest lace in its most delicate tracery. From Mr. H. B. May, Edmonton.

Viola Councillor Walters, rich purple in colour, with yellow eye.

V. Dr. McFarlane.—One of the Magpie type, dark purple and blue.

V. Isolda.—A light yellow, and a rayless flower. These three were from Messrs. Dobbie and Co., Rothsay.

Viola Royal Sovereign (Stark).—A rich yellow kind, and a perfectly rayless flower. From Messrs. Stark.

MEDALS.

A silver-gilt Flora medal was awarded to Lady Harmsworth; a silver-gilt Banksian medal to Mr. A. F. Dutton for Tree Carnations, and to Mr. Pritchard for herbaceous plants; a silver Flora medal to Messrs. Cuthbush and Son, Highgate, for Carnations, Mr. H. B. May for Crotons; and a silver Banksian medal to Messrs. H. Low and Co. for Carnations, to Lady Phillimore for Hollyhocks, Messrs. T. S. Ware, Limited, for Carnations, Mr. J. Douglas for Carnations, and to Messrs. H. Cannell and Sons for *Gloxinias* and Shirley Poppies. Mr. Howard Crane received a bronze Banksian medal for *Violas*.

ORCHID COMMITTEE.

No groups were before this committee, and a very small number of plants.

The following received an award of merit: *Miltonia vexillaria radiata magnifica*, from Mrs. Haywood, Reigate, received an award of merit, but the flower-spike had been removed when our notes were taken.

Laelio-Cattleya chardwarensis, from G. F. Moore, Esq., Bourton-on-the-Water, also received an award of merit, but the plant had been removed.

Botanical certificates were granted to *Notylia multiflora*, from Messrs. Hugh Low and Co.; and to *Maxillaria picta* Warley variety, from Miss Willmott, Warley Place, Essex.

Laelio-Cattleya Henry Greenwood (Glebelands var.) and *Cypripedium Penelope* (Morganis × Veitchi) were exhibited by Mr. Gurney Fowler, South Woodford (gardener, Mr. J. Davis), and *Laelio-Cattleya Geoffrey* (L. lucasiana × C. gigas) by C. J. Lucas, Esq., Warnham Court, Horsham (gardener, Mr. G. Duncan).

Phalenopsis violacea Low's var., with the greenish white sepals and petals coloured purplish carmine at their bases, was exhibited by Messrs. Low and Co., Bush Hill Park.

FRUIT COMMITTEE.

The most extensive exhibit before this committee was one of Peas, of which some 125 varieties were displayed. The exhibit was in many respects a counterpart of that at Chelsea a week ago, and considering the great heat recently experienced the entire batch was in the pink of condition. The new variety, *Quite Content*, with its 5-inch pods of large Peas, attracted a good deal of attention. It is really a specially fine addition to the maincrop section. *Silver Banksian* medal.

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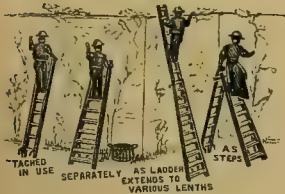
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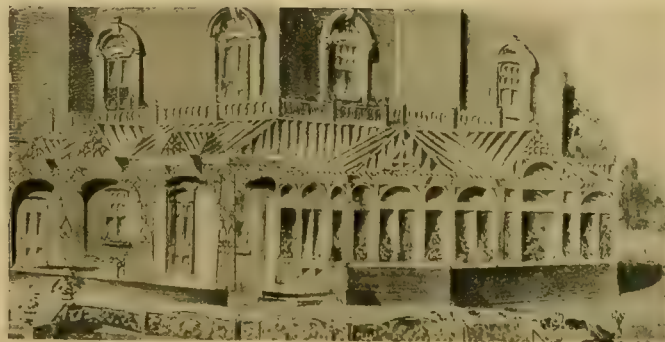
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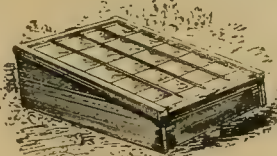
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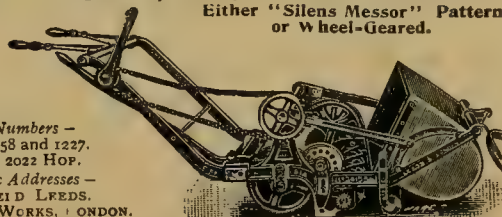
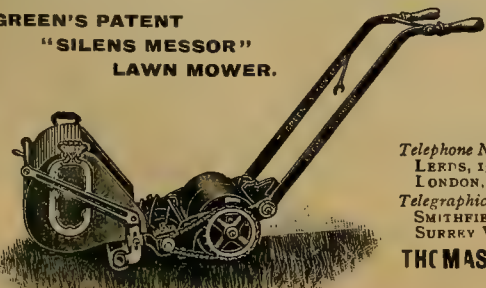
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Nectarine Rivers' Early was splendidly shown by Mrs. Haywood, Woodhatch Lodge, Reigate. There were some four dozen grand fruits shown, for which a silver Knightian medal was awarded.

Improved Telegraph Cucumber was shown by Mrs. Pullinger, Murray Lodge, Campden Hill, W.

Red Currant Chevalier's Sensation was exhibited by Messrs. Hobbies, Limited, Dereham. The berries are of large size and arranged in long bunches. The colour is very brilliant.

Rubus Lucretia was sent by Messrs. R. Veitch and Son, Exeter.

A fine box of Brown Turkey Figs came from the Marquis of Salisbury, Hatfield House (gardener, Mr. Norman). The fruits were in excellent condition. Silver Banksian medal.

A collection of Peas and a dish of Tomato Lord Roberts were exhibited by Messrs. John King and Sons, Coggeshall, Essex. Vote of thanks.

NATIONAL CARNATION AND PICOTEE SOCIETY. THE show of this society, which was held in conjunction with the Royal Horticultural Society's fortnightly meeting at the hall on Tuesday last, was a distinct success. Most of the classes were well filled, but, as usual, the prizes went to a limited number of exhibitors.

In the class for twenty-four bazarres or flakes the first prize went to Mr. F. Wellesley, Westfield, Woking, for a fine lot of blooms, with remarkably fine markings; second, Mr. Martin R. Smith, Hayes, Kent.

In the class for twenty-four self-coloured Carnations Mr. F. Wellesley was again first; second, Mr. M. Smith.

In the class for twenty-four fancies Mr. M. Smith was first with a beautiful lot of blooms; and the blooms shown by Mr. F. Wellesley, who was second, were almost equally good.

In the class for twenty-four Picotees Mr. M. Smith was first with well-marked varieties; second, Mr. F. Wellesley.

In the class for twenty-four yellow ground Picotees Mr. F. Wellesley was first with beautiful blooms; second, Mr. M. Smith.

For six blooms of self Carnations, one variety, Mr. F. Wellesley was first; second, Mr. M. Smith.

For six yellow or buff grounds Mr. M. Smith was first; second, Mr. F. Wellesley.

For six fancy Carnations, one variety, Messrs. Blackmore and Langdon was first with fine blooms of Millie; second, Mr. F. Wellesley, with smaller blooms of the same variety.

In the class for six blooms of yellow-ground Picotees, one variety, Mr. F. Wellesley was first with good blooms of Mrs. W. Heriot, the second prize going to Mr. M. Smith for the same variety.

For twelve varieties, three blooms of each, shown with foliage in vases, Mr. M. Smith was first; second, Mr. F. Wellesley.

In the classes for bazarres and flakes Messrs. Phillips and Taylor were successful exhibitors. In the selfs there were some good blooms, and Mr. W. H. Paston was a successful exhibitor.

For twelve bazarres and flakes Mr. R. C. Cartwright was first; second, Mr. H. R. Taylor, Cheam. For twelve selfs, distinct, Mr. Cartwright was again first; second, Mr. Taylor.

For twelve fancies Mr. F. H. A. Booth, Dorking, was first; second, Mr. W. Spencer.

For twelve Picotees, distinct, Mr. Booth was first, the second being gained by Mr. H. K. Taylor.

For twelve yellow ground Picotees Mr. Spencer was first and Mr. Booth second. In this class there were some fine blooms.

For six blooms, selfs, Mr. R. C. Cartwright was first with good blooms of Daffodil; second, Messrs. Phillips and Taylor for another good yellow, Mrs. M. V. Charrington.

For six yellow or buff ground fancies, one variety, Mr. Booth was first with Argosy, a fine Carnation; second, Messrs. Phillips and Taylor, for Hidalgo.

In the class for six varieties, three blooms of each, shown in vases, there were some good exhibits. Mr. Cartwright was first; second, Messrs. Phillips and Taylor.

In the third division there were many good exhibits, and among successful exhibitors were Mr. D. Walker, Kilmarnock; Mr. J. J. Keen, Southampton; Mr. J. J. Sheldon, South Woodford; Mr. J. Fairlie, Acton; Mr. C. A. Philbrick, Reading; Mr. A. J. Rowberry, Stamford Hill; and Mr. E. Charrington, Lingfield. It was interesting to note that in the smaller classes the prizes were divided among a greater number of exhibitors.

In groups of Carnations in pots Mr. Martin Smith was first with a very fine exhibit; second, Mr. H. Lakeman, Thornton Heath.

For single specimens Mr. Smith was first, and Mr. Lakeman second.

For twelve specimen plants Mr. Smith was first, and Mr. C. Turner, Slough, second.

In the class for new varieties there were some pretty things, but no certificates were awarded as far as we could see.

TRADE EXHIBITS.

These were shown in vases, and were much more interesting than the dressed blooms on the boards.

Messrs. Cutbush and Sons made a fine exhibit of the various types, King Arthur, scarlet; Duchess of Westminster, pink; and many others were worthy of note. Silver Floral medal awarded.

Mr. J. Douglas exhibited a fine collection of border varieties, and gained awards of merits for Viscountess Ebrington, a fine buff; also for Liberte, yellow ground heavily marked with crimson.

Mr. A. F. Dutton, Iver, Bucks, staged a very fine collection of the American varieties. Shown on long stems in tall vases they were most effective. Silver-gilt Banksian medal.

Messrs. T. S. Ware, Limited, had a very pretty display of American and border varieties. Silver Banksian medal awarded.

Messrs. Blackmore and Langdon, Bath, made a good exhibit of useful varieties. Messrs. Veitch and Sons, Chelsea, showed pot plants in good varieties. Messrs. H. Low and Co., Enfield, exhibited a large collection representing the various types in good form. Silver Banksian medal.

Messrs. Phillips and Taylor, Bracknell, Berks, put up a group of pot plants and cut blooms.

NATIONAL ROSE SOCIETY.

BEAUTIFUL SHOW AT GLOUCESTER.

THE National Rose Society held its provincial show this year at The Spa, Gloucester, and were welcomed heartily by the Mayor, who invited the leading members to luncheon. The weather was very fine, and the whole proceedings passed off most pleasantly. The show was excellent, and the exhibits were displayed in one large tent. The Gloucester Rose Show was held in conjunction.

NURSERYMEN.

One of the great classes was for thirty-six blooms, distinct varieties, the first prize consisting of the Jubilee Trophy and £3. This was won by Messrs. Alex. Dickson and Sons, Limited, Newtownards, Ireland, with splendid blooms; Messrs. Harkness and Son, Hitchin, were a very good second; and Mr. Hugh Dickson, Royal Nurseries, Belfast, third. There were five entries.

In the class for seventy-two blooms, distinct varieties, the first prize being £5, Messrs. Alex. Dickson and Sons were again the winners with beautiful flowers, including several of their own raising. All the flowers were of exceptionally fine colour and form. Messrs. Harkness were second, and Mr. Hugh Dickson third.

Again the Newtownards firm were first for thirty-six blooms, distinct, with exceptionally fine flowers; Messrs. Harkness and Son second; and the King's Acre Nursery, Hereford, third.

For thirty-six distinct varieties, three blooms of each, Messrs. Perkins and Sons, Coventry, were first with very fresh and brightly-coloured flowers; Mr. George Prince, Oxford, an excellent second; and Mr. Stephen Treseder, Cardiff, third.

There were eight exhibits in the class for sixteen distinct varieties, three blooms of each, the first prize collection coming from Mr. Stephen Treseder. His blooms were of exceptional merit. Messrs. H. Jefferies and Son, Cirencester, were second.

Mr. Prince headed the list in the class for eighteen blooms, distinct, and Messrs. Harkness and Son second. These were the only competitors.

In the class for twelve blooms, distinct, Mr. Drew, Longworth, was first; Messrs. H. Jefferies and Son, second; and the King's Acre Nursery third. There were five entries.

OPEN.

For twelve blooms of new Roses, distinct, there were only two entries, but the first prize collection from Messrs. Paul and Son, Cheshunt, was of much interest; Messrs. Perkins and Sons second.

Messrs. Alex. Dickson won in the class for twelve blooms of any white or yellow Rose with superb flowers of Frau Karl Druschki; Mr. Mattock second, and Messrs. Harkness third. There were twelve entries in this class.

For twelve blooms of any light pink or rose-coloured Rose, Messrs. Townsend and Sons, Worcester, were first with Mrs. J. Laing of beautiful colour; the King's Acre Nursery Company were second, and Messrs. Paul and Son, Cheshunt, third.

For the same number of blooms of any light or dark crimson Rose, Messrs. Alex. Dickson were the principal prize winners with A. K. Williams, a Rose that appears to be flowering exceptionally well this year; the King's Acre Nursery Company second; Mr. Rigg, Reading, third.

A very charming feature of the show consisted of the exhibition Roses to be shown in vases. The vases must rest on the staging itself, and not be raised above it. The chief class was for twelve distinct varieties, five blooms of each, and the first prize went to Mr. G. Prince of Oxford, who had an exceptionally fine exhibit. We could not discover the name of the second prizewinner; Messrs. Jefferies were third.

For twelve distinct varieties of Tea and Noisette Roses, three blooms of each, Mr. Prince was first with flowers of fine colour and form; Mr. Drew second; and Messrs. Jefferies third.

In the class for eighteen distinct varieties Mr. Mattock was the first prizewinner with beautiful blooms; Messrs. Paul and Son, Cheshunt, second; and Messrs. Fuller and Maylam, Cheltenham, third.

AMATEURS.

The Jubilee Trophy and £3, the first prize, for twenty-four blooms, distinct varieties, in the amateurs' division, was well won by Mr. Conway Jones; Mr. Dennison, Kenilworth, second; and Mr. E. B. Lindsell, Hitchin, third.

The Rev. J. H. Pemberton, Havering-atte-Bower, Essex, added another victory to his many conquests this season in the class for thirty-six blooms, distinct. His flowers were excellent. Mr. E. B. Lindsell was second; and Mr. Conway Jones third.

The eight varieties, three blooms of each, shown by Mr. Dennison of Kenilworth were very fine, and easily won the first prize; Mr. Foley Hobbs second; and the Rev. J. H. Pemberton third.

For nine blooms of any Rose except Tea or Noisette, Mr. Dennison was first with superb flowers of Mildred Grant.

In the class for six blooms, distinct (open only to growers of less than 500 plants of varieties in the National Rose

Society's catalogue of exhibition Roses, including Teas and Noisettes), Mr. Holbrook, Lucicote House, was first; and Mr. Gill, Hucclecote, second. These were the only entries.

Mr. Whittle of Leicester was the only exhibitor in the class for six distinct varieties, but his flowers would have been difficult to beat in any case.

For twelve blooms, distinct, Mr. Conway Jones was an excellent first; Mr. Hill Gray, Bath, second; and the Rev. E. Powley third.

For nine blooms, of any one variety, Mr. Hill Gray was first with White Maman Cochet; the Rev. E. Powley second; and the Rev. J. H. Pemberton third. There were five entries. The above two classes were open to all.

In the class for six blooms, distinct, open only to growers of less than 200 plants of Teas and Noisettes, Mr. Whittle was first.

SECTION FOR DECORATIVE ROSES.

Exhibits in this section must be arranged so as to show, as far as possible, the foliage and habit of growth of each variety, and may be staged in vases, boxes, or other receptacles, each variety to be in a separate receptacle. All Hybrid Perpetuals (except the single-flowered varieties) are to be excluded. All Teas and Noisettes and Hybrid Teas mentioned in the National Rose Society's catalogue of exhibition Roses are also to be excluded. Moss, Provence, and other summer-flowering Roses may be included. All the stems must reach the water.

For twelve distinct varieties (space occupied by the exhibit not to exceed 6 feet by 3 feet), the Rev. J. H. Pemberton was first with a charming display; and Mr. H. J. Elwes, Collesbourne, second.

In the class for six distinct varieties Mr. Conway Jones was first with a beautiful display; Mr. Reed, Newnham, second.

There were some pretty table decorations, Miss Watson, Cheltenham, being first. The variety used was Dorothy Perkins.

The classes for new seedling Roses are always a source of interest. In the class for six trusses of any new seedling or sport, Messrs. Alex. Dickson showed C. J. Grahame, a bright red flower, and Mrs. J. Bateman, rich rose, but no award was made.

The best blooms in the show were as follows: To Alex. Dickson, for the Hybrid Perpetual Helen Keller; to the same firm for Hybrid Tea Mildred Grant; and to Mr. Prince for White Maman Cochet. All were beautiful flowers.

Among the amateurs Mr. Dennison won with the Hybrid Perpetual Helen Keller and the Hybrid Tea Mildred Grant. Mr. Hill Gray had the most beautiful Tea, a flower of White Maman Cochet.

UNITED HORTICULTURAL BENEFIT AND PROVIDENT SOCIETY.

THE monthly committee meeting of this society was held at the Royal Horticultural Hall, Vincent Square, Westminster, on Monday, the 10th inst.; Mr. Thomas Winter presided. Eight new members were elected, making a total of ninety-two this year so far. Sick pay to members since the last meeting was £23 2s. Mr. William Marshall has kindly consented to take the chair at the annual dinner, which will be held in October next, due notice of which will be given.

* * * Owing to pressure on space at this season of the year, when flower shows are so numerous, we are compelled to hold over the report of Wolverhampton Floral Fête until next week.

LATE NOTES.

Henry Eckford testimonial.—The contributions to this fund up to the evening of Saturday, July 15, amounted to 912½ shillings.

Sale of insecticides.—In the House of Commons on the 13th inst. Mr. Alexander Cross, M.P., asked the President of the Board of Agriculture when he proposes to introduce his Bill dealing with the sale of substances used extensively and in large quantity in horticulture and agriculture, but which are technically included as poisons under the schedules of the Pharmacy Act, in view of the efforts made to monopolise the trade in such articles by retail druggists, to the injury of these industries of farming and gardening, and in reply he received the following answer: "The Bill in question falls within the province of the Privy Council rather than my own, but I am in communication with my noble friend the Lord President as to the advisability of its introduction at no distant date, and, further, that the Bill is in a state of preparedness."

A prolific Pea.—Mr. E. R. Fuller, Kelvedon, Essex, sends a photograph of a prolific Pea. "The haulm was only 2 feet high, having two pods at every joint, making twenty pods on the plant, the produce of one Pea."

* * * The Yearly Subscription to THE GARDEN is: *Inland*, 6s. 6d.; *Foreign*, 8s. 9d.

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GARDENING IN SUBURBS.

DURING the last few years the improved methods of exit from our great cities have proved a boon to thousands of town workers, who now are able to recreate in a purer air. The love of the soil is innate in the minds of most men, whether town or whether country-bred. Where some few years ago hundreds were able daily to leave behind the dreary, flowerless suburbs of that inner circle of greater London, now thousands are able to do so, and the fringe of this vast city, as of other cities and large towns throughout the country, is ever increasing. Houses there have larger gardens, for land is cheaper, and as a consequence suburban districts are yearly increasing in beauty. The larger streets and roads are planted with avenues of trees, that give welcome shade in summer-time, and the garden of one house vies with that of its neighbour in producing a continuous and brilliant display of flowers. Successful gardening is nothing if not infectious; the skill of one leads to an increased effort on the part of another, and so gardening in the suburbs increases. And there is every reason why it should increase. There are really few hardy plants that cannot be grown successfully some few miles away from a smoke-laden city. With plants in glass houses it is a different matter, for often a heavily smoke-laden fog in winter will end in a few hours the work of twelve months. He who grows hardy plants, however, is practically free from risk of damage by fog, for in winter hardy plants are more or less dormant, while those in glass houses are often in the height of their beauty and blossoming. The gardener in the suburbs cannot complain of the variety of material at his disposal, for in the Rose alone he has some dozens of good sorts, and there is probably no better plant for his purpose. It will grow with a freedom that even a country cottager might envy if, and this condition is an all-important one, the soil is suitable. The cause of almost all failures in small gardens may be traced to poor and unsuitable soil. It must surely be from ignorance of the great difference between plants grown in poor and those grown in good soil that such moderate results are obtained year after year. If only the borders

were dug deeply in the autumn and one or two cartloads of manure were added, the cost would be trifling, but the results astonishing.

Rarely does one see a small garden in the suburbs made the most of. The builder invariably places the path facing full south, and the border on that side of the garden where the sun shines least. This, of course, must be altered if plants are to be well grown. They need all the sunshine they can get, and especially in a small garden, where, owing to houses, trees, and fences, there is often a good deal of shade. Some plants love sunshine, and others shade, so in planting take care to discriminate carefully. Finally, give them a soil that has been deeply dug and enriched with manure, and the garden, no matter how small, can hardly fail to be one of flowers.

THE ANNALS OF THE LITTLE RED HOUSE.—VI.

THE POTTING SHED.

IN a snug corner between a barn and the south wall we tucked away a nice strong little Fig tree—Early Violet. We keep the soil poor and mat up the plant in winter; it is now beginning to bear, and has already got its head over the garden wall. Now about Currants. We planted a quarter with these and the Gooseberries. We none of us care much for Black Currants, so we had about a dozen bushes only of Carter's Champion. The Red Currants we selected are Red Dutch for early and Raby Castle for late, and Fay's Prolific for size, and for dessert White Dutch. We also planted some Raspberry canes against an espalier, but I do not think these have been a success. I believe the North country fashion of growing Raspberries on stakes is the best, but then it takes room. I think, also, the Raspberry is a fruit that likes a cool climate, and really does better in the northern counties. When a woman is really gardening in a serious fashion, she should certainly have a little *pied-à-terre* of her own in her garden when space permits. If you have a potting shed of your own you are perfectly independent, and there all sorts of experiments can be carried out, impossible with the rougher, dirtier work of the garden in progress. Treasures of seeds and bulbs can be stored away under lock and key in safety, and there is really no estimating the comfort and convenience of such a little haven. An account of how we built my potting shed may be of interest to the readers

of THE GARDEN, for as we did it easily others can do it likewise.

Having decided on the size of the potting shed, 12 feet by 8 feet, the first thing was to cut out the foundations. When we had done this we built in three courses of brickwork—the sides were 13 feet and the ends 9 feet—making the top of the brickwork just level with the surface of the ground. On the brick foundations we laid Oak beams, 6 inches by 4 inches, with the ends halved into each other for a bottom plate. The uprights and middle rail and top plate were of yellow Deal, 4 inches by 3 inches. The uprights were 6 feet 6 inches from the bottom to the top plate, and were just let in to the bottom plate by a short tenon, and the middle rail was mortised into the upright and the ends of the top plate halved into each other. A length of floor-board served as a ridge piece set up on King posts, 4 feet from the top plate. The rafters were made of yellow Deal, 3 inches by 2 inches, twelve in number on each side, and so placed about 15 inches apart. They were cut at their top ends so as to fit against the ridge piece, and notched on to top plates near to their lower ends, leaving some 8-inch projectory for eaves. The tile battens made of Deal 2 inches by $\frac{3}{4}$ inch were then nailed across the rafters, $3\frac{1}{2}$ inches from the top edge of one to the top edge of the next. This gives exactly the right over-loop for the ordinary sized tile. Every third rafter was secured across to its fellow on the opposite side by "collars," to prevent the lateral thrust outwards by the weight of the roof; this is very considerable if tiles are used, their weight being about 18 lb. to the square foot of roofing; the lowest piece nailed across the ends of the rafters, called the eaves plate, was made of piece Deal, 4 inches by 2 inches, sawn down diagonally. The door, a ledger one, was 6 feet by 2 feet 9 inches, and the windows, two in number, only separated from each other by the middle upright, were 3 feet 2 inches by 2 feet 10 inches, and were hung from the top, pushed outward and secured by the ordinary greenhouse window fastening.

The floor was tiled with square paving tiles, of which, together with the roofing tiles, we found just enough about the place, an old building having been pulled down by the former owner—a lucky find as regards the roofing tiles, as these are getting scarce, being 200 years old and more. Along the side where the windows are a bench was placed, about 2 feet wide, at a convenient height, and along the opposite side a range of shelves; two bins occupied the end opposite the door, one for stowing away rubbish and the other for garden sticks. Beneath the bench a supply of soil is kept ready for use, a box of silver sand, a box of soot, and a box of broken crocks. A small shelf is fixed over the bench

for various articles constantly required: ink bottle and pen, West's raffia tape and Ver-bena pins, a pot of paint for whitening garden labels, an indelible pencil, a ball of twine, some tarred string and tie labels, and, each in its own place, held by a strap, are a trowel, a small hammer, a Daisy fork, clippers, and a strong garden knife. On a nail hangs a housemaid's pad for kneeling on, and in the corner near the door hang a spade and fork, a rake and hoe—all light but strong tools—and here, too, you will find an extremely useful little syringe, furnished by the Abol Company. On a shelf we keep a tin of Abol, one of Clay's Fertilizer, and a box of Slugicide—a quite excellent deterrent. Three watering-cans of different sizes complete the outfit, and as we put a gutter piping all round the eaves of the shed and connected it with a water-barrel at one corner, we manage to keep a sufficient water supply on hand. A few pots and wooden boxes for seeds are stowed away beneath the potting bench, and we make frames for the boxes which hold down the paper coverings when it is necessary to keep the seeds in the dark for a few days.

AUGUSTA DE LACY LACY.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

August 1.—Royal Horticultural Society's Meeting.

August 2.—Chesterfield Horticultural Show.

August 7.—Lichfield, Wells, Mansfield, Grantham, Ilkeston and Prescott and District Flower Shows.

August 9.—Tavistock and Ventnor Horticultural Shows.

August 15.—Royal Horticultural Society's Meeting; Clay Cross Horticultural Show.

August 16.—Bishop's Stortford, Cilne, and Harpenden Flower Shows.

August 17.—Dyffryn District and Taunton Deane Horticultural Shows.

August 19.—Seascale and Lake District and Sheffield Flower Shows.

August 22.—Rothesay and Oxford Flower Shows.

August 23.—Shrewsbury Floral Fête (two days).

August 24.—Aberdeen Flower Show (three days); Wargrave and Knowl Hill Cottagers' Horticultural Show.

Portrait of Her Grace the Duchess of Westminster.—The portrait of the Duchess of Westminster in THE GARDEN of last week was taken by Speaight, New Bond Street, W.

Presentation to Mr. R. Dean.—A purse containing £100 was recently presented to Mr. R. Dean by Mr. C. E. Shea, president of the National Chrysanthemum Society. Mr. Shea spoke warmly of Mr. Dean's work.

Brodiaea grandiflora.—The position of this pretty bulb has been rather a puzzle in the past. Though the specimen I sent you had six stamens, all the authorities which I have give it as belonging to Triandria monogynia. This is so in "Johnson's Gardeners' Dictionary," in the "Botanical Register," and in the *Botanical Magazine*. The "Register," however, alludes to the fact that the Squamæ on the orifice of the perianthium are occasionally furnished with perfect anthers, adding that in *Brodiaea congesta* this is always so. The *Botanical Magazine* gives an excellent illustration of these Squamæ. The whole article in the *Botanical Magazine* is very interesting, and appears to me to justify the conclusion arrived at by Mr. Douglas, that what we grow

as *Brodiaea grandiflora* ought rather to be considered a species of *Millea* of Cavanilles.—T. H. ARCHER HIND. [*Brodiaea* is now placed in Liliaceæ, close to the genus *Milla*, the Linnean classification into Triandria, &c., having long since been abandoned. See the 1894 edition of "Johnson's Gardeners' Dictionary," page 132. It is anomalous amongst the Liliaceæ in usually (but not always) having only three stamens.—Ed.]

Pansies at Wolverhampton.

Many years ago the late Mr. Paul Lutz offered valuable prizes at Wolverhampton for groups of Pansies and Violas staged without being wired in glasses. These prizes have been continued by the Wolverhampton Society, and at their great exhibition on the 11th, 12th, and 13th inst. several very fine collections were put up, the first prize being obtained by Messrs. W. Pemberton and Sons, Walsall; the second by Mr. Alderman Waters, Accrington Green. The first prize lot was as fresh and beautiful as anyone could wish to see, the blooms being large and remarkably rich in colour. Outstanding varieties were Bronze Kintore, Mrs. Chichester (white, broadly and beautifully edged with heliotrope), and the well-known yellow A. J. Rowberry. The group of seedling Violas staged by Mr. W. Marple, Penkridge, calls for more than a passing remark. Mr. Marple's flowers show that he is doing much original work with the Viola. He staged ten varieties for the opinion of the judges. Unfortunately, he placed them in a part of the tent away from the general exhibits of Pansies and Violas, and they were overlooked. Two at least of the varieties are worthy of high commendation. Mrs. William Marple, a medium-sized flower of splendid substance, clear white centre except for the yellow eye, upper petals beautifully shaded with rich heliotrope, lower petals broadly banded with a lighter shade of the same colour. This was the gem of the lot. Miss F. Riley is similarly marked to Mrs. Marple, but colour a rich violet. Miss Riley is defective in the under petal when compared with Mrs. Marple. Several other seedlings were undoubtedly good, but they were too close to existing varieties to be considered distinct.—W. C.

Lecture on the Wisley Garden.

A most able and interesting lecture was delivered before the Royal Horticultural Society on July 18 by Mr. S. T. Wright, the superintendent, on the new garden at Wisley. He described the perennial interest of the garden from the Snowdrops, Aconites, Christmas Roses, Primroses, Scillas, Chionodoxas, and Cyclamen Atkinsii of January and February, down to the glowing autumn tints of the Liquidambar styraciflua with its brilliant crimson foliage, the Bird Cherry (*Cerasus padus*) one mass of gold, and other plants even in the late autumn. Among other specially beautiful things which appear to flourish on the site were *Epigæa repens*, *Phormium tenax* with leaves 8 feet long, *Gunnera manicata* with about equally large leaves, *Wistaria multijuga* with its tassels of blooms 2 feet long, Water Lilies of all kinds, *Iris Kämpferi*, *Osmundas*, and *Spiræas*, all of which flourish in great profusion, besides a host of other beautiful plants too numerous to mention in detail. The Weeping Cherry, which excites such universal admiration when seen in blossom, appeared to be a cascade of pale pink, and no weeping tree could surpass it for effect. The lecturer described the Rhododendrons and Azaleas which had been specially selected and planted by the late Mr. G. F. Wilson, and he mentioned the works which had been carried out during the comparatively short period the society had been in possession of the site, which included the erection of a long series of glass houses and dwellings for the superintendent and for the foreman, extensive water and drainage works, and roads. He mentioned the valuable selections of flowering shrubs and fruit trees and bushes received by the society from the leading nurserymen, and forecasted the work which still remained to be undertaken. He pointed out that

it is very curious and interesting to know that when in the early seventies the council of the society were looking out for a new garden, owing to the polluted atmosphere at Chiswick, excessive drainage, &c., the late owner of the Wisley Garden (G. F. Wilson, Esq.) had informed them that there was a site at Wisley that might suit their purpose, and although they did not get the garden then, the society were so fortunate as now to get it as a gift with all the work of the late G. F. Wilson added and developed. This natural garden, so well planned and beautiful, they were keeping the same as it was at his death, as it would be very difficult to improve upon it. The lecture was illustrated with a splendid series of lantern slides from negatives taken by the late Mr. F. G. Lloyd, formerly a member of the council of the society, copies of which were laid on the table, together with a series of six pictures, showing the garden under development by the late Mr. Wilson, which were lent by the Society of Arts. Dr. Maxwell Masters, F.R.S., expressed his great satisfaction at the gardens, which he had recently visited, and referred to the urgent need of a horticultural experimental station. The chairman (Harry J. Veitch, Esq.), in moving a very hearty vote of thanks to the lecturer for his admirable paper, said that the council of the society congratulated themselves in having so effective an officer as Mr. Wright, and he felt sure that nothing could have given Mr. Wilson greater pleasure than to have known that the gardens to which he had devoted so much time and care had not passed into the hands of a builder as was so often the case when the maker of a garden died, but had been devoted for ever to the objects of the Royal Horticultural Society. The experimental research station had not by any means been lost sight of, and the council had already resolved to proceed therewith when the debt still outstanding on the hall building fund and on the equipment of the gardens had been discharged. He would mention that Mr. Massee of Kew was already carrying out some scientific investigations on behalf of the society at Wisley, which would extend over some two or three years before any definite result could probably be published. He advised those Fellows who had not already done so, to visit the gardens as opportunity arose, as he felt sure that whenever they went there they would be delighted with what they saw.

Horticultural Club.—About seventy members and friends visited the Wisley Gardens last Thursday week, and spent an enjoyable hour in this Surrey woodland. The party were conveyed by special saloon carriages to Weybridge, where brakes were in readiness for the drive to Wisley. After an inspection of the Royal Horticultural Society's garden, lunch was served at the Hunt Hotel. The drive was resumed, through beautiful lanes, to Chertsey, where a launch was awaiting to continue the journey to Kingston. Here brakes were again in readiness to take the party, at the kind invitation of Mr. James Walker, to his charming garden on Ham Common. The magnificent fruit houses were inspected, and a delightful hour spent in the grounds, where refreshments were provided. There were several guests, among them Mr. Arderne from South Africa.

A village garden competition. For several years prizes have been given annually by Mr. F. G. Gregson of Tilliefour for the best kept gardens in the village of Moneymusk, Aberdeenshire, and these prizes have had a highly beneficial effect in the improvement of the local gardens and the embellishment of the pretty village. This year the gardens were judged by Mr. Grant, Castle Fraser, and Mr. W. Milne, Corindale House, who awarded the prizes to the following competitors in the order in which they appear: Messrs. Badenoch, Wyness, Barron, Jamieson, and Mathieson. The dry season had told to some extent, but as a whole the gardens were admirably cultivated.

Desfontainea spinosa.—During late summer and often well into the autumn the bright-coloured flowers of this beautiful shrub are to be seen, and from their distinct character they are sure to attract attention. In habit the *Desfontainea* forms a sturdy-growing shrub, clothed with spiny leaves, very like those of the Holly; indeed, when out of bloom it would by the uninitiated be taken for a member of the Holly family. The flowers, however, soon dispel this allusion, as they are tubular in shape, drooping, of a thick wax-like texture, and nearly 2 inches long. In their bright yellow and scarlet colouring they very much suggest those of a *Blandfordia* or of *Rhododendron cinnabarinum*. This *Desfontainea* is a native of the Andes of South America, from Chili to New Grenada, and is thoroughly hardy only in the favoured parts of these islands, for even in the London district it needs a certain amount of protection. It is one of the many beautiful South American shrubs whose introduction we owe to William Lobb. Though so much resembling a Holly, the *Desfontainea* is in no way related thereto, belonging as it does to the natural order Loganiaceae, whose only hardy representatives among shrubs are the different members of the genus *Buddleia*. It is not very difficult to strike from cuttings, which should be formed of the half-ripened shoots, dibbled firmly into sandy soil, and placed in a frame kept close and shaded till rooted, which will take some months.—H. P.

A pretty variegated Hydrangea (*H. nivalis*).—Last autumn an award of merit was given by the Royal Horticultural Society to a very distinct and pretty form of *Hydrangea*, which was marked in a totally different manner to any of the other variegated *Hydrangeas* in cultivation. It was again at the Chelsea exhibition well shown by Messrs. William Bull and Sons of King's Road, and gained many admirers. In the old variegated *Hydrangea* the centre of the leaf is green, margined more or less with pure white or whitish variegation, whereas in the new-comer the reverse is the case, the central portion of the leaf with the leaf-stalks and young stems being of a clear cream tint, while the margin of the leaf is green. In some of the leaves the green-tinted portion extends over more space than in others. Flowering examples were not shown, but from this point of view it is scarcely likely to make much headway, but as a bright and pretty variegated-leaved plant for the greenhouse (of which, by the way, there are not many) it is sure to become popular. Being a plant of easy propagation and culture, we shall not have long to wait for this *Hydrangea* to be generally distributed.—H. P.

A rare and curious Orchid—*Cymbidium Huttoni*.—A rare and curious Orchid, which somewhat resembles a species of *Grammatophyllum* is now to be seen in full bloom in the *Cymbidium* house at the Glebelands, the residence of J. Gurney Fowler, Esq. It has fairly long arching racemes, bearing ten to twelve good-sized flowers of substantial texture, and densely spotted with blackish purple on a yellowish green ground, the petals and the tip of the lip being even darker than the sepals. The dark colour of this Orchid makes it a very distinct and desirable species. Originally it was discovered by Mr. Henry Hutton, and introduced into cultivation from the island of Java close on forty years ago, but it has been recently reintroduced through the instrumentality of Mr. W. Micholitz when collecting last year for Messrs. Sander and Sons in Central Sumatra, where it was found at a height of about 2,000 feet above sea-level. This moderate height would rather indicate that this species needs not to be grown quite so cool as the majority of the *Cymbidiums*. The dried flowers sent by Mr. Micholitz are nearly black, and the Central Sumatran form is no doubt different in various ways to Hutton's typical Javan type. Micholitz

says: "The flower-spikes are from 6 inches to 15 inches long, pendulous, and bearing from about six to fifteen flowers; the flowers are of a thick, almost leathery substance, about 3 inches across; sepals and petals and also lip thickly dotted with blackish purple on a yellowish green ground; petals and apex of lip almost black; back of flower greyish green. When I saw the thing I was struck with the close resemblance to some American Orchid, *Cycnoches*, or *Mormodes*, which I saw many years ago, and if in addition to the leaves and bulbs the plant did not also have the very characteristic roots common to all *Grammatophyllum*, I would hesitate to say it is



VERONICA SPICATA. (Found wild near Newmarket.)

a *Grammatophyllum*." Micholitz, as one can readily see, took it for a species of *Grammatophyllum*, and it really does seem to be a connecting link between the two genera *Cymbidium* and *Grammatophyllum*. The Kew authorities, however, have decided that it is a true *Cymbidium*. It was figured in the *Botanical Magazine* a quarter of a century ago, and commemorates Mr. H. Hutton, an old friend of the writer's. It has been found twice in Java and twice in Sumatra. Mr. Gurney Fowler will try

to produce a hybrid between this Javan species and the Burmese *C. lowianum*.—ARGUTUS.

Veronica spicata growing wild.

Most of us can remember in the days of our childhood that there were unknown places into which we were strictly forbidden to wander. These were, not unnaturally, the very haunts we longed to visit; in them were unknown animals; there, and there only, could we pluck such flowers as flourished nowhere else; and as for birds' eggs, if only we could get there, we knew that untold treasures would be ours. The instincts of early days are hard to eradicate, and it may be, perhaps, some lingering vestige of one's youth that always makes us want to explore the wide mysterious expanse of Newmarket Heath in the quiet hours, when the roar of the ring is hushed, and when even the hardest working trainer is still slumbering peacefully. Those who do so are often well rewarded for their pains, for the Heath is a treasure-house to the naturalist and botanist, and if they can only be found some of the rarest of English wild flowers grow there in profusion. It is only a few days ago that Mr. Hughes Hughes came across *Veronica spicata* in full bloom, and it is entirely owing to his kindness that the writer was enabled to gather the specimens of that beautiful plant of which a picture accompanies these lines. As a border plant in gardens *Veronica spicata* is fairly well known, but as a purely wild flower it is very rare and local in its habits. For some 200 years it has been mentioned in old books as having been found at intervals on Newmarket Heath, but it is now some twenty-eight years since it has been noticed, and it is somewhat curious that Mr. Verrall, who is a most enthusiastic observer and collector, has never been fortunate enough to find it for himself, while Mr. Hughes Hughes came upon it a few days ago flowering freely and in considerable quantity.—B.

A late summer-flowering Rhododendron.

—By the time midsummer is turned the season of the Himalayan *Rhododendrons* may be regarded as over, but *H. Maddeni* will often flower some time after that; indeed, at the Chelsea exhibition it figured among the interesting group of uncommon subjects shown by Mr. G. Reuthe of Keston, Kent, where so many Himalayan *Rhododendrons* do well out of doors. *R. Maddeni* must, however, be regarded as one of the tenderest of its class, and at least in the neighbourhood of London winter protection is absolutely necessary. When in good condition *R. Maddeni* forms a freely branched but somewhat loose-growing bush, clothed with oblong-lanceolate leaves, deep green above, and covered with ferruginous scales underneath. The flowers are not borne in compact trusses, as in *R. arboreum* and many others, but are produced in loose heads, with as a rule not more than half-a-dozen flowers in a cluster, while there are frequently less than that. The individual blooms are about 3 inches or 4 inches long, and as much across the expanded mouth, their colour when fully opened being pure white, though in the bud state they have sometimes a purplish tinge. Beside the specific name of *Maddeni* it has been known as *R. calophyllum*, *R. Jenkinsi*, and *R. virginale*, but at most these represent only seedling forms, as they may all be obtained from a single pod of seed. This species will as seedlings flower in much less time than many others, that is, if the plants are allowed to run up without stopping. The curious manner in which the bark frequently peels off the stems of this *Rhododendron* suggests somewhat the behaviour of *Arbutus* *Andrachne*. A second species shown in association with *R. Maddeni* was *R. cinnabarinum*, whose drooping *Blandfordia*-like flowers are so distinct and pretty. According to Mr. Reuthe it flowers with him till summer is well advanced, which may perhaps be an individual peculiarity, as I have never found it behave in this way.—H. P.

Dobbie's white spiral Candytuft.

—At their new seed grounds at Mark's Tey, Messrs. Dobbie and Co. have a large area of this new form of Candytuft. It is strange that the plant is not more often met with. The strain is now as good as one could wish for; infinite pains are taken to keep up the standard. The flowering spikes are fully 5 inches to 6 inches long, and almost 2 inches in diameter. The flowers are pure white; the seed is sown in October, the resulting seedlings planted out in March, and by midsummer they are in full blossom. Mr. Cuthbertson is hoping some day to raise a crimson-purple Candytuft of spiral form, and is persevering in this direction.—D. B. C.

The Shirley Poppies.

—Last year I was fortunate in procuring a small packet of seed from a very good source, and thought that I had seen the Shirley Poppies at their best. This season, however, the display quite eclipses anything previously seen in my garden. This is to be attributed entirely to the kindness of the Rev. W. Wilks, secretary of the Royal Horticultural Society, who this year again offered to the Fellows of the society a packet of seed on application to Shirley Vicarage. Rich tones of colour and splendid markings characterise most of the flowers. I have seen in the seed grounds of two large growers this season large areas devoted to Shirley Poppies, but neither of them were to be compared for beauty and diversity of markings with those seen in the latest development of the originator of the strain. British floriculturists will ever be indebted to Mr. Wilks for this beautiful annual. I find the plants appreciate an occasional application of manure water, subsequent to a free application of clear water. As a consequence, the flowers are better in every respect. The bed devoted to the Shirley Poppies is picked over each morning quite early, and the ends of the flower-stalks are steeped in boiling water for about three minutes. By these means the flowers continue to progress, and invariably remain in good condition for three days.—D. B. C.

Cypripedium Daisy Barclay.

This new and very beautiful variety is the progeny of two of the finest Cypripediums in cultivation, viz., *C. Godefroyae leucochilum* × *C. rothschildianum*. The flowers are creamy white, with rich claret-purple markings, disposed in lines along the sepals and petals, the lip having spots of deep rose-purple. In general contour they most resemble *C. rothschildianum*, but have very large lower sepals, which are most beautifully marked with red-purple colour on a creamy ground. This plant when recently exhibited before the Royal Horticultural Society was deservedly awarded a first-class certificate, for although bearing some resemblance to *C. Rolfeae*, even the best varieties of the latter are much inferior to that under notice. It is one of the most beautiful hybrid Cypripediums yet raised, and Mr. Gurney Fowler must be congratulated on flowering it for the first time.—ARGUTUS.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

BISHOP'S WEED IN LAWN.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Since asking you for information some weeks ago as to the simplest way of getting rid of this terrible pest, I have had a valuable, though rather costly, experience that should be of service to others who are troubled in the same way; and, though the process may seem rather complicated and slow, I am satisfied that there is no quicker or cheaper one, and it should serve as a warning to look sharply after the first signs of the evil. Of course, this applies to lawns only,

with tough fibrous grass roots that have been well rolled into a hard, compact mass, and not to Bishop's Weed growing in a flower or vegetable border, where it can easily be uprooted and shaken out from the loose soil. The affected area in my lawn was about 500 superficial yards, the result of about twenty years' neglect in preventing the weed spreading into the grass from an adjacent flower and Rose border. After repeated and ineffectual attempts to pick the Bishop's Weed out of freshly-dug turf, we were ultimately obliged to resort to the laborious process of digging up the latter into small pieces about 10 inches long by 4 inches to 6 inches square, setting them up on end to dry (which fortunately did not take very long during our exceptionally dry spring and early summer), and then banging them to dust by means of a heavy three-pronged plasterer's "hawk," as it is called in Scotland.

After this, all the fibrous grass roots and Bishop's Weed had to be shaken out together, it being still impossible to separate them, much as we wished to preserve the former for potting purposes, and, after requiring to be again banged from one to three times—according to the nature of the adhering soil—by means of a heavy spade or fork, it was at last ready to be burned. But even the burning of it required special treatment, owing to the large proportion of soil that still adhered to it and a clamminess that no amount of sun-heat and wind could dry out of it, and the bonfire had to be carefully built up as follows: First, a heap of dry sticks and straw were laid on the ground; then half a dozen stout branches firmly planted upright around it, on which cross branches and other dry material were laid horizontally, and upon this foundation the first layer of roots was spread, followed by alternate layers of dry sticks, straw, and roots until a height of about 3 feet was reached, when a second row of stouter and taller branches was planted outside the first lot, so as to allow the bonfire to be built to a height of 7 feet. Lastly, the very lighting of it had to be studied scientifically, because our first bonfires very soon toppled over and smothered themselves after having been lit in the orthodox fashion at the bottom, all the supporting framework of branches having been burned through long before the heavy damp weeds had got alight, and therefore we ultimately discovered that the proper place to light it was half-way up, which allowed the framework of branches to stand up and support the weeds until the very end of the fire.

But even the bonfires do not end our troubles, because a great many small fragments of the Bishop's Weed roots are left in the ground after repeated forking and raking, and even after sifting the dust through a quarter-inch mesh sieve, and the only way to get at them is to leave the ground fallow or plant it with vegetables and annuals for two or three years, during which period the surviving roots are obliged to show themselves in leaf at the surface, and can then be forked up and burned. It is not safe to lay down the affected ground with grass again for at least two years, because I am just now discovering small patches of Bishop's Weed spreading through other grass plots that were sown with grass shortly after being cleared of Bishop's Weed about eight years ago.

Edinburgh.

VICTIM.

NEW CLIMBING ROSES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In your recent references to the Rose Philadelphia Rambler, which received an award at the Temple Show, the colour is described as rather dull crimson, which suggests the possibility that it was seen in a poor light or under adverse conditions. With us Philadelphia is very rich and glowing in colour, not far removed from Ulrich Brunner in tint, and this brilliancy does not fade out. This year Crimson Rambler deteriorated very rapidly, owing to excessively

humid heat at time of blooming, the flowers quickly fading to a sickly magenta, but Philadelphia retained its brilliancy to the last. The flower is better finished than that of Crimson Rambler, possessing more substance, while the firm glossy foliage is much superior. However, we need them both, for the difference of a week or ten days in time of bloom gives a much prolonged season of beauty.

Another new pillar Rose originated by Dr. Van Fleet, but not yet disseminated, will, I think, make a strong impression when it becomes known. It is the result of crossing wichuraiana with Souvenir du President Carnot. It is a very robust grower, with broad, shining foliage, making thick canes, growing 8 feet or more in a season. The flowers are semi-double, forming an elegant pointed Tea bud, light rosy flesh in colour; they grow singly or in clusters of three or five, on very long stems. The flowers are produced profusely over a long season in June and July, and the finished greenhouse beauty of both flowers and foliage, with its robust habit and extreme hardness, make it really unique. It has passed through two exceptionally severe and prolonged winters with me, in an exposed situation, without any protection. It has been called, tentatively, Daybreak Rambler.

Many of the most delicately beautiful pillar Roses I see referred to in THE GARDEN will not endure our variegated climate, and this makes Daybreak double valuable to us. Two successive winters which gave prolonged zero temperature (including twenty-three below) have illustrated the survival of the fittest. Ruby Queen is extremely satisfactory, forming a fountain of bloom; climbing Clothilde Soupert is hardy and free, but as the Rose-chafers ate the entire crop of June flowers I must possess my soul in patience until the next crop of bloom is with us and the chafers are not.

EMILY TAPLIN ROYLE.

Maywood, New Jersey.

CLEMATIS FAILING.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—My experience with Clematis may interest some of your readers. My soil is stiff and deficient in lime; Rhododendrons grow freely in it. Three years ago I planted six Clematises; some died at once, the others struggled on and died during the summer. This spring I planted four more, and divided nearly a bucketful of lime scraps among the soil they were planted in. They are all in good health and growing vigorously. I attribute the difference entirely to the lime.

Rothley, Loughborough.

A. H. BENNETT.

NOTABLE GARDENS.**GROVE HALL, RETFORD.**

WHAT a lovely old place is Grove Hall, and what a splendid situation—some two and a-half miles from the little town of Retford. The approach is a pleasant one, and very rural. Passing through the park gate one is attracted by a magnificent pair of Wellingtonias; the park is undulating, and some fine old Oaks are noticeable. The mansion itself is a spacious building, and from the terrace a magnificent view is obtained; an occasional glimpse of Lincoln Cathedral—some seventeen miles away—on the one hand, and into Derbyshire on the other, can be had. Flanking the house is a large stretch of lawn, and here are some of the finest specimens of Beech we have seen, whose spreading branches reach almost to the ground; a fine old Araucaria, some 50 feet high, and a big specimen of Garrya elliptica are noticeable. Rustic arches, covered with climbing Roses, enclose a large circular bed, and close by

is a very fine *Spiræa arifolia*. The small Rose garden, recently planted, contains such varieties as Mme. Pierre Cochet, Laurette Messimy, Souv. de Catherine Guillot, Dr. Grill, and others; a fine old Gloire de Dijon with some 200 to 300 blooms on it is noticeable. Winding walks through well-kept shrubberies are a feature; the pleasure grounds and shrubberies are some 10 acres to 12 acres in extent.

The kitchen garden is enclosed by walls 2½ feet thick, a great portion of which can be heated, if necessary, to protect the fruit trees in severe weather, flues being provided for that purpose. We made a tour of the outside to inspect the borders and fruit trees, and Mr. Welch, the head gardener, grows enthusiastic when talking of fruit growing; indeed, throughout the gardens are evidences that Mr. Welch makes a point of doing all things well. Pears are a fair crop; Apples, though not a large crop, are yet satisfactory, and Cox's Orange Pippin here produced fruit last season 9½ inches in circumference. What a splendid row of Bramley's Seedlings are here! They bear a fair crop, and from a particularly fine lot of trees.

On the walls are Apricots, Cherries, and Greengages. A border of Sir John Llewelyn Potatoes looks extremely well. Inside the kitchen garden is a charming sight. Roses are largely grown, and very fine they are; each walk is lined on either side with Roses. The following were particularly good: Beesie Brown, La France, White Maman Cochet, Jeannie Dickson, Dr. Grill, Mme. Pernet Ducher, Glory of Cheshunt, Gustave Regis, Grace Darling, Caroline Testout, Sofrano, A. K. Williams, Golden Gate, Souvenir de S. A. Prince, Comtesse de Nadaillac, Margaret Dickson, Empress Alexandra of Russia (beautiful colour), Captain Hayward, &c. Over arches were trained Crimson Rambler, The Garland, Thalia, Longworth Rambler, &c.; while on pillars, again, were such as Dorothy Perkins, Ards Rover, &c., and particularly noticeable were perfect specimens of Crimson Rambler in standard form.

On a very interesting border we noticed the following new Roses: Etoile de France, Frau Lilla Rautenstrauch, Billiard et Barré, Arethusa, Mme. Ravary, Souv. de Pierre Notting, La Tosca, M. Paul Lédé, the beautiful Lady Roberts, Amateur Teyssier of exceptional beauty, Pharisæer, May Capucine, and Grand Duc de Luxembourg very fine.

Peaches and Nectarines on the walls (outside) were an excellent crop, and Currants on bush trees were a revelation, Raby Castle and Fay's Prolific bearing immense crops of fine fruit. Gooseberries, too, were excellent. Strawberries are an important crop here, and these, like other fruits, gave abundant evidence of good cultivation. Several varieties are grown, but Mr. Welch has the best opinion of Royal Sovereign, which here is much better than The Laxton. Trafalgar is a fine late variety, and a new variety, Givon's Late, has done well. Of the kitchen garden generally, the whole of the crops are excellent, and do justice to the care bestowed upon them. Of Peas, English Wonder is a

favourite, and is ten days earlier than Excelsior; Sutton's Early Giant, Gradus, Eureka, and Best of All are also grown, while Autocrat is a favourite late variety.

In the glass department, Black Hamburg, Muscat of Alexandria, and Gros Guillaume Grapes bear good crops, one large Vine carrying forty-five bunches. In the Tomato house is a good crop, both dessert and cooking varieties, some with ten to twelve trusses to a plant, and eighteen to twenty fruits on a truss. In other houses are a nice lot of Bamboos, Adiantums, Crotons, Pandanus, Begonias, &c. In the Peach houses, too, there are excellent crops. The pond from which the water supply for the garden is obtained is a picturesque spot, the banks being

THE ROSE GARDEN.

A ROSE GARDEN AT BATH.

BATH is a city of hills and dales, the hill-sides a monotony of grey-terraced houses and hot white roads the dales. Once leave these behind, however, and the hills and hollows are clothed with gardens where plants luxuriate. What a relief to turn from the glaring dusty roads to the cool restfulness of a wayside garden, and especially a garden such as the one we have in mind. The garden belonging to Mrs. Rust, which

we recently had the pleasure of visiting, is a delightful mingling of the new and the old. In the mixed borders, those flowers dear to the hearts of our grandparents—favourites of a past generation, and, fortunately, favourites still with some—flourish with a vigour born of long experience and an intimate knowledge of their soil and surroundings. Old-fashioned Roses, too, cover the arbours and pergolas with a freedom of growth and profusion of flowers that the most vigorous of the newer Roses cannot excel. The glory of this garden lies in its Roses. Covering each path that separates the prosaic kitchen and fruit garden plots one from the other are arches of Roses, each one, without exception, rampantly happy and unmistakably at home. Their shoots are blossom wreaths in pink, white, red, and yellow, transforming the bare walks into arcades of flowers.

The arches cover the walks at intervals of a few yards, and against them are planted the following varieties among others, each arch being covered with one variety only, Alberic Barbier (the pale yellow hybrid wichuraiana, more often seen creeping over a roostery or trailing along the ground), Wallflower, Leuchtstern, Claire Jacquier, Carmine Pillar, Reine Olga de Wurtemberg, Crimson Rambler, Aimée Vibert, Mme. d'Arblay, and others. We give illustrations of Alberic Barbier and Wallflower. The vigour of



ROSE ALBERIC BARBIER OVER ARCH IN A GARDEN AT BATH.

planted with Irises. By the side of the walks are clumps of *Spiræa Aruncus* with from fifty to sixty fine spikes of flowers.

The gardens at Grove Hall date back to 1798, and are the home of the "Grove" variety of Celery. Mr. E. E. Harcourt Vernon, the owner, takes a great interest in his beautiful grounds, and in the interest and welfare of his workpeople. Mr. Welch has had charge of the gardens since 1874. He is much in request as a judge at shows throughout a wide area. Some of the men have worked in the garden for upwards of twenty years, a fact that speaks volumes for the feeling existing between them.

W. L.

the former is well shown, the growths being made this year are of extraordinary size. Wallflower was simply a mass of flower, and one of the most gorgeous bits of garden colour we have ever seen. One side of the arch was simply a panel of red. This variety has not been planted so long as some of the others, so that it has thoroughly covered one side of the arch only. Claire Jacquier is making perhaps the most rampant growth of any. This Rose is almost always spoken of as not quite hardy, yet we have seen some splendid plants of it this year, the young growths almost Beetroot colour and extremely vigorous.

In Mrs. Rust's garden the hedge of Penzance Briars is a remarkably fine one, and noteworthy also is one of *Rosa rugosa*. Many hundreds of bush Roses are grown here, and there must have been almost an acre of plants in flower when we saw them. The blooms of Ulrich Brunner, Caroline Testout, La France, Clio, and other vigorous varieties were really wonderful, and no doubt would render a very good account of themselves when exhibited in competition. We have rarely seen a Rose garden that might so truthfully be called a garden of Roses, for there were Roses, Roses everywhere.

THE BEST GARDEN ROSES.

NOTES FROM A MIDLAND GARDEN.

As this is the month *par excellence* for Roses, the following notes may be of some use to those who intend to add to their Rose gardens, as they are taken in a garden which has over three hundred different sorts, not mentioning those commonly called "the old-fashioned Roses," such as Celestial and Old Tuscan, or what are almost Briars, like *nuttalliana* and *Fendleri*. Yet the latter sorts have great charms, not sufficiently realised, as they are usually planted in surroundings not suitable to their growth or appearance. Of some of these I hope to write about later. I commenced my garden-making some fourteen years ago, and amongst the many lessons I have been taught about Rose gardening are the following: First, to grow your Hybrid Perpetuals all together, your Tea Roses together, Hybrid Teas together, and Polyanthus (dwarf) also, never mix them; their growths are different, and you want far more room between each bush, yet how often do you see in gardens beds of Roses with, say, an Ulrich Brunner cheek by jowl with a weak-growing Tea Rose! Secondly, plan to have some place, either leading away from the Rose garden proper, or quite apart from it, where you can grow the "old-fashioned Roses" and such sorts as the different varieties of China, *wichuriana*, *Rugosa*, and Rose species. Every year I order about fifty of the newest sorts of Roses, plant them by themselves, and then weed out those that are not worthy of a place in the permanent beds. It is very disheartening to find after some wonderful description in a catalogue and a long new name that there is possibly no difference at all between the new Rose one has been treasuring all the winter and the bloom of one that is a very ancient friend. I have to-day been going the round of the Roses, marking those that are unworthy—either from colour, habit, or mildew propensity—to be kept, and which will be cremated on the rubbish heap in the autumn.

But to turn to the successes amongst the newer Roses. Paul Lédé is quite one of the best, undaunted by intense heat, it hardly flags, and in pouring rain unfolds well, and is exquisite in form and colour. It is now promoted to a front place in my favourite bed. This particular bed is given over to "colour" Roses. Here flourish all the Guillot family, Mme. A. Mari, Liberty, Papa Gontier, Comtesse Festetics Hamilton, Aurora, Mme. H. Lenillot, Pauline Bersez, Lady Moyra Beauclerk, Beauté Inconstante, Dr. Grill, M. Joseph Hill, Gustave Regis, Souv. de W. Robinson, Beryl, General Gallieni, G. Nabonnand, General Schablikine, Ideal, and others, while that indescribable colour of Duc Adolphe de Luxembourg makes a glowing mass at the back of the bed from early spring to late autumn.

In the wilder part of the garden the knife is never used, and the consequence is that an immense bush, 12 feet high, of Mme. Georges Bruant is a sheet of white flowers, and scenting the air for some way round, while opposite it is a splendid bush (of the same height) and covered with huge panicles of its sweet flowers of that magnificent Rose *Brunonis moschata*. These



ROSE WALLFLOWER IN A BATH GARDEN.

(Colour, rich rose.)

Roses are never pruned, but the dead wood cut out each spring. The latter is additionally handsome by having very beautiful berries in the autumn. That excellent Briar Soleil d'Or is just finishing the good work it has been doing in keeping the garden bright; it keeps its colour better where not planted in brightest sun, and, as someone remarked the other day, "at a distance it looked like a Rose bush covered with poached eggs;" it is very double, large, an intense orange colour, and desirable in every way. Two very beautiful Rose arches just now are covered with Crimson Rambler and Myrianthes Ranuncule (they both bloom exactly together, and the red and white are brilliant), and another of *Rosa rubrifolia*, and Queen Alexandra is very pleasing in its soft pink and grey effect, as is also an arch of Leuchtstern and Virginian Rambler. The colouring of Roses on arches is not often thought out enough, thus you sometimes find Dr. Rouges and Reine Marie Henriette planted together.

A small bed of the Polyantha Clothilde Soupert is quite charming, but to me it looks much more like a Bourbon than Polyantha; it is somewhat

like that delightful Mme. Pierre Oger in shape, only with a carmine heart instead of pale pink, and very much dwarfier. I suppose everyone almost grows Antoine Rivoire, Prince de Bulgarie, Viscountess de Savigny, Emilie Gouin, and Dr. Felix Guyon, if not, they should hasten to. Of the very newest Roses on trial, so far I like Mlle. J. Philippe, Souv. de Mme. Levet, Tillier, and Princess Mertschy best, but one must see their autumn efforts before judging, and the latter is too much like La France.

Among the "interesting" Roses in bloom now are Sancta, Burgundian, Mme. Plantier, Damascena, Old Tuscan, Cabbage, York and Lancaster, and the Apothecary's Rose. Now a word as to soil. This is a strong clay in the cold Midlands, but I find by far the best place for the Roses is where they get well wind-swept in the winter, as it keeps the buds dormant, and so they do not suffer so much from those nightmares of a rosarian, viz., late spring frosts.

"HERB O' GRACE."

ORNAMENTAL FENCE OF ROSES.

[In reply to "M. A. S."]

We have frequently advocated such a fence as you propose to make. They are far more useful than Laurel or Privet hedges, and do not impoverish the soil for other occupants to such an extent as these latter shrubs. You would do well to commence the work early in September if practicable, which would enable the land to settle down before planting. Trench two spits deep, but keep the subsoil at bottom. Work in farmyard manure and half-inch bones rather liberally. As to the number of plants required, this would much depend upon the height of screen you desired, as those sorts that grow most vigorously would be planted further apart. For a screen of, say, 5 feet to 6 feet high, we should say 3 feet apart would be about the right distance. Where possible procure own-root plants, as in the end these are the best.

We do not care for iron posts, but would prefer Oak. They should be let into the ground about 2 feet to 3 feet. Many of the Roses are best trained in palmate form; they flower and grow better. We name three dozen sorts, which would provide you with a good selection. Those marked with an asterisk, being perpetual, should be distributed at intervals along the fence. We omit the Ayrshire and Evergreen Roses, also Crimson Rambler, Dorothy Perkins, Queen Alexandra, and Blush Rambler, which you say you have already: The Garland, Jersey Beauty, Alberic Barbier, Auguste Barbier, Gardenia, Rene Andre, Elia Robichon, Rubin, Lady Gay, Pink Pearl, Electra, Helené, *Conrad F. Meyer, Mrs. Anthony Waterer, Carmine Pillar, Wallflower, The Lion, Una, *Climbing Caroline Testout, *Climbing Belle Siebrecht, *Bardou Job, *Gloire des Rosomanes, Purity, *Mme. Alfred Carrière, *Longworth Rambler, *Aimée Vibert, *W. A. Richardson, *Grüss an Teplitz, *Lady Waterlow, *England's Glory, *Gloire de Dijon, *François Crousse, *Marie Lavalée, *Morgenroth, *Mme. J. Pereire, and *Ulrich Brunner.

ROSE GRÜSS AN TEPLITZ.

THE value of this Rose as a bedder cannot be too highly insisted upon. It seems to flower almost continuously. It was one of the first of our Roses to open, and now at this date, although most of our others are over, it stands out conspicuously. Many hundreds of buds have yet to open. The colour is vivid crimson, and contrasts well with Frau Karl Druschki and Caroline Testout.

G. BURROWS.

BRIAR ROSES UNA AND ARVENSIS.

In the autumn of 1903 I was somewhat puzzled as to what was the best flowering plant to cover a very steep bank of earth close to the river edge, facing east, and partly shaded by a huge Plane tree. Roses seemed almost out of the question,

but, having previously seen these two lovely Briars with their Eucharis-like flowers, I was tempted to give them a trial. A deep trench 2 feet wide was made at the bottom of the bank, into which was put a good mixture of stiff loam, cow manure, and bones. The Briars were then planted and the shoots pegged down to the bank. The results last summer were rather disappointing, but towards autumn they threw out some splendid growths from 12 feet to 15 feet in length, which have rewarded us this year with hundreds of flowers. They are two splendid Roses, very hardy, and a great acquisition for such a cold, shady position, where for a great number of years only Ivy has been known to flourish.

Avon Castle.

G. BURROWS.

THE FLOWER GARDEN.

GOOD BORDER PLANTS.

NOW that the herbaceous borders are in the full glory of their first summer beauty, a little review of successes and failures may be of use for future work. It is curious how the blossoming of things differs in time and season. The Delphiniums were late this year and so are still in flower, and very desirable it is that we can reckon on their exquisite blue shades. The Oriental Poppies are over, and their somewhat unsightly stems cut down. The scarlet Lychnis take their place well in point of colour, but they require keeping well together, and when the weather is hot occasionally watering. Some of the most beautiful flowers in the border now are very large plants of sulphur yellow Snapdragon; it is unusually sturdy and free in growth and finely flowered; it makes a delicate and charming contrast with the blue Larkspurs. Large clumps of Sutton's pink beauty Sweet William, too, are very telling, and so are the rose Canterbury Bells. These are splendid this summer, and if every faded flower is snipped off and a little liquid manure is given, there will be a second blooming almost as good. How valuable, too, are the dark velvet Sweet Williams, and here and there the brilliant flame of a crimson Canna. I wish one could find any place for the Orange Lilies in a mixed border. Directly a crimson flower comes near there is a colour discord; orange in the foreground does not seem to offend in the same way. The great masses of Crimson Rambler fill the eye with such a wealth of colour that its pink sisters are quite put in the shade. Another year I will keep them farther apart and away from such a riot of colour as surrounds them now. White flowers are very effective. The spikes of a belated Lupin are a delight with the azure Delphiniums, and so are the tall Campanula persicifolia, which, by the by, must be staked, and it is not always easy to do this tidily. The Gaillardias are late, too, this summer, and the Iceland Poppies, which

flowered profusely very early, must have their seed vessels taken off at once to ensure a full second flowering. I am anxiously awaiting the blossoming of Miss Jekyll Love-in-a-Mist, for then we shall have blue to succeed, to a certain degree, the departed Delphiniums, also I am impatiently looking for Nicotiana Sanderae, of which we have heard so much.

A. DE L. L.

CALCEOLARIA INTEGRIFOLIA.

THIS Calceolaria, though rarely met with elsewhere, has been common at the mouth of the Dart for certainly over thirty years, but I can learn nothing as to its first introduction into the neighbourhood. It is now to be met with in many other parts in the south-west, but I believe that in all cases the plants owed their origin to the Kingswear Calceolarias. I read not long since that this plant was useless for outdoor work, as it would not stand frost. This, however, is an erroneous idea, since Calceolaria integrifolia is hardier than the shrubby Veronicas. Two years ago I gave a friend residing near

and stoniest sites. A line has been growing for some years in stony soil at the top of a retaining wall, over which Mesembryanthemum edule hangs. Immediately behind the Calceolarias is a high hedge of Laurustinus. How the Calceolarias exist it is difficult to imagine, for the soil must be full of the roots of the Laurustinus and Mesembryanthemum, and in summer is dust-dry, as the wall faces due south. However, though they make but little growth, the Calceolarias are covered with flowers every July, and show no signs of dying. Calceolaria integrifolia deserves to be considered one of the best of the smaller-flowering shrubs in the south-west.

S. W. FITZHERBERT.

THE VALUE OF VIOLAS AS BEDDING PLANTS.

MORE than twenty years ago a gardener who had worked much in Scotch gardens told me that Violas at one establishment were the principal plants used for ordinary summer bedding. The reason why these plants were so employed came about as follows, namely: All the summer-flowering subjects had been planted out—a large



THE INTERESTING CALCEOLARIA INTEGRIFOLIA. (Five feet high.)

Plympton a number of cuttings; plants raised from these were put out last year, and by the autumn were from 1 foot to 18 inches in height. In November 18° of frost was experienced, followed by a very sunny day. Numbers of shrubby Veronicas, Cytisus racemosus, Cordyline australis, and in one case Olearia stellulata, were killed, and the foliage of the Calceolarias was browned, but not a single plant died, and all have grown well this year. Calceolaria integrifolia is at its best in July, when it is a sheet of gold, and after the zenith of its beauty is past continues to bloom more sparsely until November. The plants illustrated are 5 feet in height, but isolated specimens are often considerably taller.

This Calceolaria is absolutely indifferent to soil, making vigorous growth in rich and deep compost, and retaining its health in the driest

quantity of various kinds of plants—but a late severe frost destroyed them. There being a nice lot of Violas in the garden in question, they were made to do duty for the others as far as possible, with the result that they were a great success. For many years afterwards Violas were depended upon for the summer bedding. In Southport, where there are many sandy gardens, Violas were, some years ago, used extensively for the flower gardens in summer time, and always gave great satisfaction. Further south, in Bournemouth, these plants are every year largely grown, and look splendid. The soil is a light sandy loam. Violas do best in a good sound loam, but they can be grown in lighter soils with much success. The great beauty of the individual blooms and the long time the plants continue to flower make them favourites with many persons. To ensure a continuous

supply of blossoms every faded flower should be regularly picked off, then fresh buds will quickly follow. It is not wise to retain or depend upon old plants. New ones may be raised from seeds or cuttings. Take off the side shoots near the base of the plant, those which are strong, as they will soon form roots if inserted in a firm border with a north aspect, or in a cool frame. These will be splendid plants for bedding out next year.

AVONDALE.

NOTES ON HARDY PLANTS.

OTHONNA CHEIRIFOLIA.

HARDY flowers that can bear the cold of winter and heat and drought of summer without suffering are valuable. This

Othonna has powers of endurance that render it one of the best things in cultivation for positions that sometimes cause the hardy flower grower much trouble to embellish. The strong heat and dry soil that are the death of many things seem to be congenial to it; in fact, it really needs a lot of dry heat to ripen the wood. It is an old plant, having been introduced into this country in 1752, was first described in the *Botanical Register*, and is a native of Barbary. It is a curious plant, coming midway between shrubby and herbaceous plants, the glaucous, fleshy foliage having much resemblance to that of the broad-leaved Stonecrops. The stems rise to a height of about 2 feet, the weight of the foliage bringing them down to the ground when they push out fresh roots. The bright yellow composite flowers are produced in April and May. In my experience it does not bloom well in a young state. In the first year or two the growth is apt to be rank, and does not seem to mature sufficiently.

J. CORNHILL.

A GRACEFUL FOLIAGE PLANT.

(FERULA LINKI.)

For grace of foliage there are few plants that can rival the Fennels, and their merits as valuable subjects for the embellishment of the garden are being gradually recognised. In Devonshire the common form is a familiar wild plant, and large colonies growing on the wide spaces by the roadside or at the edge of a common make exceedingly pretty pictures. At all seasons of the year the Fennels are beautiful. In the spring their great arching, finely-divided leaves, with their filigree tracery, have reached their fullest development and shine with metallic green; in the early summer the tall, many-branched flower-stem is set with countless broad

clusters of tiny yellow blossoms; in the autumn the foliage assumes a charming colouring; and in the early winter the young leaves are slowly developed, being then fully as delicate and graceful as the foliage of *Asparagus plumosus*. Among the best-known *Ferulas* are *F. communis*, *F. tingitana*, *F. glauca*, *F. conspicua*, *F. gigantea*, and *F. Linki*, the subject of the accompanying illustration. This is a very effective plant, and is the most ornamental of the family, growing to a height of 8 feet. It is well adapted to planting in the wild garden, where a group has a noble appearance. The specimen here shown is growing in a very interesting garden in the south of Ireland at the edge of a small lake. S. W. F.

LAMIUM MACULATUM.

ABOUT twenty years ago this came into my hands under the name of *L. striatum*. Seeing

introduced from Italy in 1683, and as my edition of the "*Hortus Britannicus*" was published in 1850, it is evident that it was not in the English flora of that period. All the members of the Nettle family seed freely, and as in all probability this species became widely distributed at a time when comparatively few exotic plants were introduced, it is easy to see how it became naturalised. A short time since a friend brought me a bit of this *Lamium*, which he found growing on the banks of the river Wey far removed from human habitations. He is a good botanist, and said that it was very rare, and so thought it would interest me to know that it might be included in the flora of the district. Although I know the wild flowers of this locality very well, I had never seen it growing wild, and for the moment it puzzled me to account for its presence in such an out-of-the-way spot. Then I remembered that many years ago there stood an old cottage,

the site of which is now ploughed ground, within a few yards of the spot where the *Lamium* was found. Undoubtedly, some forty or fifty years ago it was grown in that cottage garden. The house and garden are gone, the plant still lingers near the place where it once found a happy home. One may class this *Lamium* among the neglected plants, but it is useful for covering bare places, as it is one of those things that no amount of bad weather in winter can damage, and when once established seems to choke all kinds of weeds.

Byfleet, Surrey. J. CORNHILL.

THE BRONZE-LEAF (RODGERSIA).

NATIVES of China and Japan, the members of this genus are herbaceous plants of considerable garden value on account of their handsome foliage and graceful panicles of white, cream, or rose-coloured flowers. Quite hardy, and of easy culture in moist, but not wet, peaty soil, mixed with loam and sand, this Bronze-leaf forms a very distinct feature in border or bog garden.

R. podophylla is the best known species, and is, in fact, the only one in general cultivation. The umbrella-like leaves, deeply divided into five segments, contribute greatly to the value of the plant. Varying in height, according to situation, from 18 inches to 3 feet, the long petioles bear themselves erect with the broad leaflets slightly drooping in a whorl at the apex.

R. pinnata is a new and valuable addition, only having been recently put into commerce. The bright clear rose-coloured flowers are more freely and more regularly produced than those of the last-named species. Well-established clumps have now several handsome panicles of bloom on stems 3 feet and 4 feet high, presenting a most distinct and noble appearance above the mass of ruddy tinted emerald green leaves. The specific name is justified by the arrangement of the five segments which compose the leaf. More rounded at the apex than in the case of *R. podophylla*, the terminal leaflet is in line with the petiole, while the rest are arranged two on each side, at



A NOBLE WATERSIDE PLANT (FERULA LINKI).

that the leaves are not spotted, but have a very distinct white stripe running down them, this name is certainly more appropriate than the one originally given it. I am told that this *Lamium* is, by our leading botanists, now classed among our native plants, but I am inclined to think that it is an escape. According to Loudon it was

varying distances apart. Possessing a constitution of perfect hardiness, together with a distinct type of beauty fitting it to rank amongst the best of hardy perennials, this rare plant has a "future" before it.

R. æsculifolia is a splendid species not yet procurable from the trade, but it may be seen in some botanic gardens. In habit this is, perhaps, the most graceful of all. The long inflorescence is a much-branched panicle of rounded panicles, 1 foot to nearly 2 feet in length, borne on slightly arching stems, while the handsome foliage, glossy green in colour, strongly resembles the leaves of a Horse Chestnut.

R. pinnata alba is the name of a plant recently given an award of merit by the Royal Horticultural Society. It would be interesting to know if this plant is distinct from *R. æsculifolia* above noted, since leaves of the last-named species sometimes appear with characteristics which might justify their being described as "pinnate."

R. tabularis (Komar) is yet only in the seedling stage, but if it proves as good as the three species already described, we shall have a genus or Chinese hardy perennials of great value for garden cultivation.

Neston, Cheshire.

E. HORTON.

THE SIBERIAN LARKSPUR (DELPHINIUM GRANDIFLORUM FL.-PL.).

THIS splendid plant has been in its present quarters five years, and this year measured 5 feet 8 inches in height. It is the earliest Delphinium to flower here, and is of a pure deep blue; no hint of mauve in its colouring. It is hardy, and likes a rich loam; but to succeed in growing such a plant as is shown in the photograph it must be saved from slugs. A zinc collar has kept this plant safe.

E. WATT.

THE EDITOR'S TABLE.

STRAWBERRY ROYAL SOVEREIGN.

Mr. A. C. Humphrey sends from The Gardens, Healing Manor, Grimaby, Lincs., splendid fruits of the Royal Sovereign Strawberry. Two of the fruits weighed 2½ oz. each. The plants were planted in well-trenched ground three years ago, and are now bearing an enormous crop.

A VERY DISTINCT BEAN.

Mr. C. Engelmann, Horneybrook Nursery, Saffron Walden, sends a very distinct Bean of a pretty pink colouring. We advise our correspondent to send a dish to the fruit committee of the Royal Horticultural Society.

ROSA WATSONIANA.

From the Rev. R. H. Wilmot, Poulton Vicarage, Fairford, comes a spray of *Rosa watsoniana*. Of little beauty or value as a garden plant, it is nevertheless most interesting. It came originally from Japan, and it probably reached this country from America. Whether a wild species or a cultivated Japanese plant does not seem very clear. In the Arnold arboretum it is said to flower freely, but this does not appear to be one of its characteristics in this country. It is a semi-prostrate plant, the leaves three or sometimes five

BETONICA SPICATA ROBUSTA (A GOOD HARDY PERENNIAL).

(Natural size. Given an award of merit by the Royal Horticultural Society recently.)

foliate; leaflets, linear, entire, 2 inches to 2½ inches in length, seldom a quarter of an inch in width at the widest part, tapering to both ends. Inflorescence many flowered, pyramid shape, 4 inches to 5 inches in length, 3½ inches to 4 inches broad, flowers three-eighths of an inch to half an inch across, pinkish-white in colour. The foliage is the most curious part of the plant, being greenish-yellow with deep green veins; at first

sight it appears to be badly attacked with red spider. Professor Crépin, at the Chiswick Rose Conference in 1889, considered it nearest *R. anemonæflora*. Because of its distinct foliage it was tried some fifteen or eighteen years ago as a stock in America. With some of the stocks used it is very difficult to distinguish suckers from the scion. The result of the experiments does not seem to have been published.

SWEET PEAS AND SUTTON'S PINK BEAUTY SWEET WILLIAM.

"*Viola*" sends some very fine Sweet Peas in many colourings, but especially interesting are the flowers of Sutton's Pink Beauty Sweet William, which has been flowering in our garden for some weeks past. It is a strong and leafy plant, but the foliage is almost hidden in the flowering season by the clusters of rich pink, in which there is a shade of salmon. A more beautiful hardy plant for June and early July does not exist. Masses of it give a remarkably fine distant effect. It is the purest and brightest of all the colourings of the Sweet William.

THE BLADDER SENNA.

From One Oak, Cheadle Hulme, Mr. R. M. Simpson sends a branch of the Bladder

Senna (*Colutea arborescens*), showing the curiously inflated seed-pods, which burst with a considerable noise when pressed. Mr. Simpson writes: "Some years ago I grew this *Colutea* from seed, and it has flowered well, but has borne very few pods. It is now a shapely bush about 5 feet high and very decorative, being as full of pods all over as on the enclosed shoot." The flowers of this shrub are yellow, and are produced from June to August. It is a native of middle and southern Europe, introduced in 1568. It is said to grow on the crater of Vesuvius.

NEW AND RARE PLANTS.

BETONICA SPICATA ROBUSTA.

THIS is an old hardy perennial plant, exhibited at the recent summer show of the Royal Horticultural Society at Chelsea by Mr. Amos Perry, Winchmore Hill, N. It was given an award of merit. The flowers, which are produced in a pyramid-like spike, as shown by the accompanying illustration, are rose-pink. They are very numerous; in fact, closely packed on the stem, and make a bright display. It makes a good border plant, growing some 18 inches high. Being of compact habit, it does not require so much tying and regulating as some loose-growing ones do. It is essentially a "tidy" plant.



GARDENING FOR BEGINNERS.

SIMPLE HINTS.

BUDDING ROSES.—This operation, as well as many another in garden craft, is very simple when the art has been acquired. The illustration represents a piece of Rose growth. At the base of each leaf-stalk is an eye, or leaf-bud, which contains the germ of a new plant. To be successful in budding this growth must be

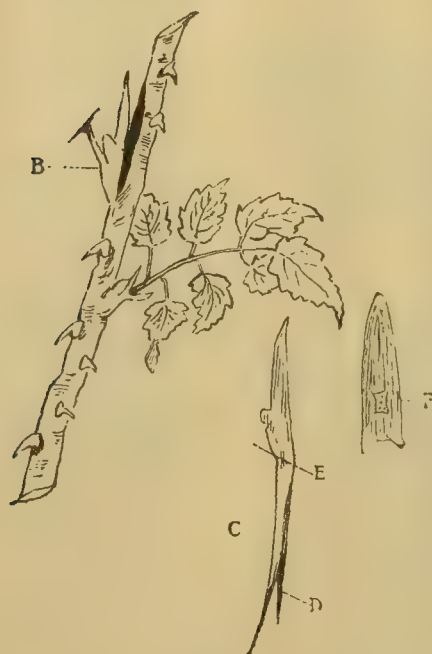


FIG. 1.

“ripe,” that is, it must have flowered, or be on the point of so doing. The growths first produced are the best to use for budding. They should be firm, and the spines or thorns be easily rubbed off. If the latter are soft and juicy the wood is not ripe enough, but it is more important to see that the stocks “run well,” that is, there should be an abundance of sap in the plant. In a very dry summer it is sometimes necessary to water the stocks a day or two before budding. Always bud the standard Briars first, for they cease to grow long before the dwarf stocks. The latter should be budded as close to the root as possible, especially if the plants are wanted for potting up. Standard Briars should be budded in July, and the dwarf stocks during August. Insert the bud on dwarf stocks on the west side if practicable. During the operation of budding keep the shoots in a jar of water, previously cutting off the leaves, but retaining about half an inch of the leaf-stalk so as to get a firm hold of the bud. Insert the knife in the shoot about 1 inch above the bud, as at B, Fig. 1. Cut thinly under the bark, and when past the bud rend it off. It will then appear as C and D, Fig. 1. Hold the bud between the thumb and finger of the left hand, and with the point of the knife lift up the small slice of wood attached to the bark and jerk it out. As a rule it comes out easily enough, leaving the germ of the bud intact. If this germ is missing, and there is a hole about the size of a pin head under the bud, it is waste of time to insert the bud. Some varieties behave in this way, and must be cut rather thinner than others. Before cutting off the bud wipe the stock clean and make a cut

upwards and then cross-wise, in shape like the letter T (see Fig. 2, A B). Do not cut so deeply as to injure the wood of the stock. Raise only the bark gently on each side of the long cut by inserting the bone of the budding knife. Then insert the bud at C and gently push it down to the end of the cut D. Many budders dispense with the cross cut, but it facilitates the insertion of the bud. When the bud is placed in position, cut off the surplus piece of bark and bind up the wound tight (see E, Fig. 2) with raffia. When the soil is free from insect pests, draw up some of the finest mould to the bud so as to quite envelop it. This is essential in a dry season. A month after budding remove the soil, examine the bud, and if found alive (which can be easily seen from where the leaf-stalk was attached, but which has now decayed) return the soil again and leave it until spring. Do not touch the tops of stocks until after the leaf has fallen, and not then unless they are wanted for cuttings. The time to remove them is in February. They are then cut quite away to within 1 inch of the bud. Seedling Briars are budded in the collar, that is, the thick root immediately below the branches.

Budding Standard Briars.—These are budded in the best lateral growths, but close up to the upright stem. Two or more kinds may be budded on one standard, but they should agree in growth—for instance, La France (pink) and Alfred Colomb (red) would associate well together. In the case of the standards remove the raffia after the fourth week, but do not cut away any of the growths until February. When the buds start out (as they often will, and blossom), leave them until autumn, and then cut back to one eye. Retain the raffia on dwarf stocks; the soil will rot it off before February.

Dwarf Roses for Town Gardens.—Among the dwarf or bush Roses those that have given me most satisfaction are Viscountess Folkestone, Ulrich Brunner, Mrs. R. G. Sharman-Crawford, Tom Wood, Mrs. J. Laing, La France, Clio, Mme. Jules Grolez (a delightful Rose, and very free), Gustave Regis, Grace Darling, Frau Karl Druschki, Caroline Testout, Mrs. G. Dickson, Duke of Edinburgh, and Dupuy Jamain. Grüss an Teplitz is a splendid free-growing and flowering Rose, and does well as a pillar Rose; the young foliage is very handsome—a rich bronze colour.

Good Roses for Town Gardens.—In late March and early April of this year I planted some twenty or thirty varieties of Roses in a small town garden, and even though planted so late they have turned out very satisfactorily, having grown and flowered well. Some have done better than others, and it may be of interest to many readers who have large or small suburban gardens if I write a few notes about the best of them. I will take the climbers first; most of these, of course, will flower little or not at all this year, but are making good growth for next year. Crimson Rambler is at present flowering freely; the bright crimson flower bunches nestling among the rich green leafage make a beautiful garden picture. I had a good plant of Crimson Rambler, so instead of cutting down to within a few inches of the ground all the strong shoots, I left one about 5 feet long, and it is this that is now producing flowers. The pink rambling Rose Dorothy Perkins I treated similarly, and this, too, is just coming into flower; both these Roses are making strong growths for flowering next year. As soon

as the flowers are over I shall cut out the old flowering wood, so as to allow the young growths plenty of light, air, and space to ensure their proper development and eventually thorough ripening. Claire Jacquier, which produces charming buff-coloured buds, and Mme. Alfred Carrière, the best white climbing Rose, are growing freely, and have covered almost 5 feet of the 10 feet high poles against which they are planted. All the climbing Roses are planted against Larch poles some 10 feet high, with the exception of a few put against a high rustic fence. Reine Olga de Wurtemberg (rich red), Longworth Rambler (pink), Leuchtstern (white, edged pink), climbing Souvenir de la Malmaison, and William's Evergreen are all growing freely, while Aimée Vibert and Arde Rover are not so satisfactory at present. Against the rustic fence I planted Ruga (which, to judge from its present rampant growth, will soon prove to be too vigorous), W. A. Richardson, and Dorothy Perkins. Against a south-west wall I have Gloire de Dijon and Reine Marie Henriette; the latter has made growths three times as long as the former. Although Gloire de Dijon is such a delightful Rose it does not break so freely from the base as most climbing varieties, and, consequently, the base of the plant is likely to become bare.

The Blue Gum Tree (Eucalyptus globulus)—In the winter garden at Great Yarmouth, which is very lofty, this Eucalyptus has been planted with considerable effect in the corners of the building. The growth has been very rapid; many of the trees are now 20 feet or more high, and are perfect columns with grand foliage. I have seen it under various conditions, in all of which the plant has been interesting. Some people keep a plant in the house as an antidote to flies, which appear to shun its presence. It is also known as the Fever Tree, from its effect on the improvement of malarial districts by its strong root-action helping to drain the ground. It is easily raised from seeds in heat in spring, and is useful for its colour effects in leaf gardening. Unfortunately, it is not hardy enough to stand a severe

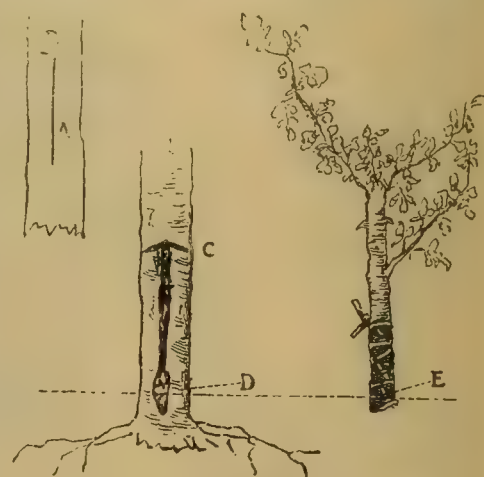


FIG. 2.

winter in this country, though there may be sheltered spots in the south and south-west where it may survive. I remember seeing, a good many years ago, a good-sized tree of possibly some fifteen or twenty years' growth, in a garden in Devonshire, of Eucalyptus citriodora. It is very

fragrant, and would make a more useful plant, because hardier than *E. globulus*, though the leaves are smaller and the glaucous tint not so decided, and without the gloss seen on the foliage of *globulus*.

Raising Old-fashioned Musk from Seeds.—A sixpenny packet will raise hundreds of plants. Sow either now or in spring in heat. If sown now, use boxes of fine rich soil and keep in a frame shaded from bright sun, and when large enough to handle prick off in other boxes. A stock of many hundred may easily be worked. This plant is not so common in the markets as it used to be, but it is a delightful old plant, and is still found on cottage windows in the country, especially where Myrtles and Sweet Verbenas are appreciated. Another sweet-scented window plant, the Oak-leaved Geranium, is not so common as it ought to be. The variegated form, Lady Plymouth, is a delightful old window plant, and works in well with Myrtles, Musk, and Coronilla glauca and its variegated variety, all of which are charming old plants.

The Scarborough Lily (Vallota purpurea).—This is one of the most popular and easiest managed of bulbous plants. Ripen the growth now by free exposure. When the growth is completed move to a cold frame, and when acclimatised give full exposure by drawing off the light. It is an evergreen, and should not be dyed. The bulbs continually throw off offsets, which soon develop into flowering bulbs. Repot when more stock is required, otherwise keep shifting on when more room is required. In this way very fine specimens are made.

Trimming Evergreen Hedges.—Hedges of Yew and Holly are splendid when well grown and kept in condition, but to keep them full and compact they should be trimmed twice a year—once in June, and again towards the end of July, after the midsummer shoots have developed. All evergreens should be treated in this way, including Privet. Lawson's Cypress and Arbor Vitæ make ornamental hedges when single-stemmed plants are used and kept well trimmed in.

The Rose Garden.—The most beautiful Rose gardens we know are not cast in a formal mould—in a geometrical sense. Circles, ovals, or oblongs filled with not more than two or three sorts of Roses pegged down are lovely on the lawn, and to give elevation there may be arches and pillars, and even standards may rise from the centres of masses of dwarf Teas or Hybrid Teas. Beds or masses of La France, Mrs. John Laing, Caroline Testout, Gloire Lyonnaise, Bouquet d'Or, and others which are free of growth are always charming. Beds of one kind of Rose pegged down were common years ago. When the old crimson Rose Geant de Bataille was first introduced, what a furore of excitement it caused, and what lovely groups it made on its own roots! It was a great advance as a bedding Rose then, but it has been beaten and discarded now.

A Charming Bellflower.—No one who has once grown *Campanula trachelium* would care to be without it. Those with small town gardens should certainly plant it. In March last I put in, some 6 inches or 8 inches away from the edge of my border, four or five quite small plants. These have grown and spread so as to make a lovely tuft of leafage, which now is smothered with pale blue flowers on slender, dainty stalks some 6 inches to 9 inches high. The tuft has made such progress that it is now beginning to encroach on the lawn, and for weeks it will be one of the most interesting objects in the garden, for it flowers freely and for a long time.

Fig Culture in the Open Air.—If there is a sunny spot on a building or wall, make an impervious foundation to keep the roots out of the subsoil and plant a Brown Turkey Fig. Keep

control of the roots, and all will be well. It is when they run riot among damp soil, deep down, that Fig trees turn out a failure. The foundation may be made of clinkers or stone, together with a mixture of lime and ashes, and rammed firm. The foundation may extend 6 feet from the wall, and on this make a border of good soil, in which old plaster or the *débris* from old buildings has been freely used. If the roots extend beyond the foundation and take a downward direction, root-lifting and root-pruning will set this right. Figs require a little protection in severe winters.

Defoliating Tomatoes.—There is not quite so much removal of foliage as there was. When done too early it leads to loss of weight in crop. When the fruits begin to colour some of the bottom leaves may be removed or shortened, but this should not be done in a wholesale way, and towards the autumn the late fruits may be opened to the sunshine and atmosphere with advantage.

Selecting Potato Sets.—The grower has this matter in his own hands, and it may be carried out without cost. When the digger comes to a specially prolific root of good-shaped tubers, place it on one side to be reserved for planting, and the next season there will be a considerable increase in the weight of the crop. Those who buy seeds, if they are wise, will be willing to pay a bigger price for carefully selected seeds. In this direction much may be done.

Winter Spinach.—Sow a good breadth of this most useful green vegetable now for use during the autumn, and a further large sowing about the middle of August for use in spring. Sow thinly in drills 12 inches apart, and thin to 6 inches. It is best sown after early Potatoes, the ground dressed with soot, and lightly stirred over with a fork. Do not sow in freshly-manured and recently-dug ground.

GARDENING OF THE WEEK.

FLOWER GARDEN.

AT the present season work in this department is very general. WALKS AND DRIVES must be kept scrupulously clean and frequently rolled, verges edged and trimmed, lawns regularly mowed, and weeds eradicated.

FLOWER-BEDS will need daily attention in the way of picking off decayed flowers and dead leaves, staking neatly any plants requiring support. Peg down such as are desired to cover the ground, and keep dwarf by pinching the points of others with a view to producing sturdy, bushy plants, and a prolonged blooming season. Beds devoted to

CARPET-BEDDING should have all blooms removed as they appear, for in this system foliage effect alone, as a rule, is the object. Stopping, clipping, and pegging down must be almost daily attended to, keeping lines and tracings true to design and distinct, or a confused jumble will result. Feed occasionally such as *Alternantheras*, *Coleus*, and *Iresines*, to keep growth active and to intensify the colour of the leaves.

ANNUALS nowadays are freely used in the embellishment of the flower garden, many being transplanted from pots and boxes into various prominent positions. These, as they grow, entail a considerable amount of labour in staking, &c., but it must be done, and is labour and expense well repaid, for few plants surpass in effect in their season and in suitable positions clumps and groups of, say, *Salpiglossis*, *Nemesias*, *Phloxes*, annual *Delphiniums*, *Stocks*, and single *Asters*, when well grown and well attended to. If neglected, they become sprawling and often unsightly. The same remarks apply to a host of biennials.

HERBACEOUS PLANTS generally should be looked over at least once a week, for growth is rapid, necessitating frequent tying up, thinning out weakly growths, &c.

DAHLIAS must have strong supports, and allow no more than three main stems to a stool, however strong, fixing a stake, slanting outwards, to each, or two or three Peasticks to a clump will answer admirably.

LILIES, GLADIOLI, GALTUNA CANDIDANS, BORDER CHRYSANTHEMUMS, and such must have early attention paid them in the same way or the flower-stems will either snap or become so twisted that no manipulation can restore them to a natural position.

YUCCAS are very promising this year, showing strong spikes of bloom; those growing in exposed positions, and especially heavy-headed varieties such as *Y. recurva*, *Y. gloriosa*, &c., must be efficiently supported. The drought having now broken, the labour entailed in watering—and it was a heavy item here as in many other places—can be diverted into attending to the increasing demands of plants in active growth on the lines suggested. *The Gardens, Tan-y-bwlch, North Wales.* J. ROBERTS.

INDOOR GARDEN.

NERINES.—Having been rested and exposed to full sunlight since May, the bulbs will begin to throw up flower-spikes next month. Any potting necessary should be attended to without delay. The bulbs are generally supposed to flower more freely when root-room is somewhat restricted. No hard and fast rule can be laid down, but, generally speaking, repotting will only be necessary about every third year. Unless a large increase in the stock is required, it will not be necessary to pot up the bulbs singly. Either pot up the bulbs three or more in a pot or shift on the clusters of bulbs as they are into a larger size. The use of clean, well-drained pots is very important. Compost, three parts fibry loam and one of leaf-mould, adding plenty of coarse sand and a sprinkling of bone-meal in the soil, or a few quarter-inch bones on the rough material over the crocks. No water will be required till the flower-spikes appear.

MIGNONETTE.—A sowing of seeds may be made early in August, and another in about a fortnight. Opinions differ as to whether the seed should be sown in pans and pricked off, sown in small pots and potted on, or sown in the flowering pots and thinned. Provided it is a good strain and the requisite attention is given in other ways, good results can be obtained by either method. Always mix a little lime rubble with the soil. If the seed is sown in the flowering pots, it is advisable to place a little fine soil on the top for sowing the seed. Sufficient room must also be left for a slight top-dressing later. Place in a frame and cover the pots with brown paper till germination commences.

GLOXINIAS.—As the plants go out of flower water must be withheld gradually. If the foliage is removed too soon or the bulbs dried off abruptly, it will weaken them for next year. When all the leaves are off, store them away in a cool place where the bulbs will not shrivel. The seedlings are ready to take the place of the older plants in the flowering house as they become shabby.

OUTSIDE PLANTS.—Such subjects as *Bouvardias*, *Solanum Capicastrum*, &c., although planted out, must not be neglected. Keep down weeds and the surface soil loose by the frequent use of the Dutch hoe. Syringe the plants morning and evening if the weather is at all dry. Watering will also be helpful, *Richardias* particularly delight in abundance of water. The layering of the border varieties of *Carnations* grown in pots can be proceeded with as the plants cease flowering. Should frame room not be available to layer them as advised for the *Malmalsons*, it can be done outside, placing a little fresh soil immediately round the layers.

GENERAL REMARKS.—Give ample room to the Ferns as the fronds develop, as the fronds must be well matured if they are to last through the winter. Assist those growing and rooting freely with manure water. The stems of the Tree Ferns may also be syringed with it once or twice a week. Stand the *Tecomas* outside to complete their growth and ripen up for flowering. Insert a few cuttings of *Coleus thrysoides* for flowering in small pots carrying one spike. Continue to remove suckers from the *Cannas*, potting up as many as required for succession. Lay the show *Pelargoniums* on their sides in the sun for a few weeks before cutting back and starting again into growth. *Royal Botanic Gardens, Kew.* A. OSBORN.

FRUIT GARDEN.

APRICOTS.—Before these begin to ripen the leaves should be drawn aside in order to expose the fruit to sunshine and air. This will considerably improve both colour and flavour. They will need protection from birds and wasps. Hessian netting is a suitable material for the purpose. Woodlice and earwigs, too, will do much damage, and some means should be taken to trap them before the fruits are ripe. Encourage young growths where there is room to lay them in, and cut away lateral growth. When the fruits are gathered thoroughly wash the trees with the garden engine or hose. Exhausted trees will benefit by adding a little fresh mulching material to the surface. Where mildew has attacked the trees, the cause will invariably be found at the root. Either dryness or an unhealthy soddened condition of the soil is often the cause of this evil. This may be remedied by lifting the trees early in the autumn. Remove some of the bad soil, replacing it with fresh loam intermixed with old brick rubble and wood ashes. Replant the trees as soon as possible, and syringe them morning and afternoon during hot weather. This treatment only applies to the comparatively young trees. Old exhausted trees should be replaced with young ones.

RASPBERRIES.—When the fruits are gathered the old canes may be removed, and the young growths tied to the trellis to prevent injury from wind. Thin out the weakly ones where they are too crowded. They will still need copious supplies of water at the roots, and stimulants will be of benefit to old plantations.

MORELLO CHERRIES should be covered with garden netting to protect them from birds. Tie in sufficient young wood for supplying next season's crop. Should the tips of the shoots be infested with black fly, dip them in tobacco water. Apart from the damage they do to the

young growth, the sticky substance which they excrete considerably detracts from the value of the fruit.

The summer pruning of wall trees should be brought to a close as soon as possible, so that the foliage on spurs and at the bases of shoots on Pear trees may be exposed to sun and air to assist them to ripen perfectly by the end of the season. Much care must be exercised in selecting sufficient growths on young trees for laying the foundation to proper training. Continue to lay in succession shoots of Peaches and Nectarines. Take care not to retain more than are necessary to replace the present season's fruiting wood or the ripening of the fruit, and young growths will be impaired. Over vigorous growth should be kept regularly pinched.

WATERING.—Young trees must be examined frequently, and if the mulching material is exhausted it should be renewed. The present season has demonstrated the great benefit accruing from mulching newly-planted trees, especially on light well-drained soils. Much good may be done to trees on walls which are carrying heavy crops by watering with diluted farmyard drainings.

E. HARRISS.

Fruit Department, Royal Gardens, Windsor.

ORCHIDS.

ODONTOGLOSSUMS.—Plants of *Odontoglossum grande*, *O. schlieperianum*, *O. insleyi*, *O. I. splendens*, and its variety *leopardianum* are now pushing up their new growths, and it will be useful to look over them every day to see that no water lodges in the centre of the breaks, as these new shoots are apt to get full of water and often decay before it is observed. When the plants begin to root they must have a good supply of water each time the soil becomes dry, but do not keep them always saturated with moisture, as the stout, fleshy roots are apt to turn black and rot off. In the cool house the pretty *Cochlidoda noezliana*, *C. (Mesospindium) vulcanicum*, and *C. sanguineum* have just done flowering, and are beginning to grow. If necessary, these plants ought to be repotted at once, using absolutely good drainage and a mixture of peat, sphagnum moss, and leaf-soil in equal quantities, pressing the compost moderately firm around the base of the pseudo-bulbs. These *Cochlidodas* grow best when suspended well up to the roof-glass in shallow pans or in the ordinary flower-pot, and they should be kept plentifully supplied with water all through the summer and until the new growths are made up. Aphides are particularly partial to the young growths of these plants, but if the house is periodically vapourised with XL All Compound these insects will be easily destroyed. *Odontoglossums* of the *O. crispum*, *O. triumphans*, *O. pescatorei*, those of the *O. luteo-purpureum* section, and others that have recently passed their flowering stage should not be kept too wet at the root, or they will decay, and the new growths, many of which are now starting, will come up thin and weak. When watering these plants do not saturate them, but afford just sufficient to make the compost moist. The same remarks are also applicable to

MASEVALLIAS of the *harryana*, *Veitchii*, and *Lindenii* sections, watering the plants only when the compost has become dry. Those plants of the *M. Chimera* section should always be suspended well up to the roof in a shady position, and the foliage should be well syringed every day and the plants kept watered at the root. During hot weather the cool house should be freely ventilated and the plants carefully protected from strong sunshine; in fact, everything possible should be done to keep the atmosphere a few degrees lower in temperature than the external air. It is not always advisable to be continually damping the floors, &c., with the object of keeping the temperature down, because the plants, instead of growing hard and solid, become soft. I have mentioned in a previous calendar that the glass on the cool house at Burford is stippled over with a mixture of flour and water, and, even when the sun shines full on it, the glass is quite cool to the touch. In addition to this lattice-wood blinds are used, and on the 14th inst. when the thermometer in the screen registered 85½°, garden mats were placed over the blinds, and by keeping them and the immediate surroundings well syringed, a cool, airy atmosphere of 75° was easily maintained. As regards the lean-to *Odontoglossum* house with north or north-east aspect, no difficulty is experienced beyond occasionally damping outside the house and around the lower ventilators in preserving a comparatively cool temperature at all times. These cool houses during exceptionally warm weather are well damped down in the early morning, again at 10 a.m., also about five o'clock in the afternoon, and the plants slightly sprayed overhead several times during the day. Plenty of ventilation is afforded through both top and bottom ventilators, especially in the cool of the evening and during the hours of darkness. Under such treatment insect pests do not cause much trouble, and undoubtedly the plants obtain considerable benefit from the evening and night air.

Burford Gardens, Dorking.

W. H. WHITE.

KITCHEN GARDEN.

BRASSICA.—A thorough examination must now be made of all plantations lately put in of Brussels Sprouts, Cauliflowers, Savoyas, &c., for the purpose of ascertaining that no failures have occurred among them. No time must be lost in making failures good, but before putting fresh plants in the places of those which have failed, well break up the soil with a trowel, so that the roots of the young healthy plants may immediately come into contact with good sweet earth. A few plants would probably be reserved from preceding plantations; these, if carefully handled, can be lifted with good balls of soil adhering to their roots, and in consequence the growth will be very slightly hindered with the change of place. All recently-

planted vegetables must be kept well supplied with water, but if the tillage has been deep, and the surface freely stirred with the Dutch hoe, it is wonderful how even succulent vegetables will grow steadily on in very dry weather.

BORSCOLE OR KALE.—This useful and hardy vegetable should now be planted out where Potatoes have just been cleared off. These plants must have an abundance of space, not less than 2 feet from row to row, and nearly as much from plant to plant, planting them alternately. Dwarf, flat, broad heads, with a fine curl, are what the cultivator is desirous of obtaining, and this he will not succeed in procuring from a thick plantation.

PARSLEY.—Young rows or beds must be thinned and freed from weeds and watered. Give a good soaking before thinning takes place, and another immediately afterwards.

TURNIPS.—Make a good sowing of this useful root on ground that is being cleared of Peas, Spinach, and such-like. Turnips sown at this time will not grow to a great size, but will turn to nice serviceable stuff, and will stand on the ground a long time without deteriorating, as those of larger size are ready to do. Yellow-fleshed Turnips are considered best for late autumn and winter use. For this supply Yellow Fingland has long been a favourite of mine. Orange Jelly is another fine variety for late use. Should the ground be dry, let the bottoms of the drills be moistened before sowing the Turnips.

CELERY.—Where early heads are wanted, blanching must now be seen to, although I do not advocate too early earthing up of Celery, considering it time enough when the foliage has grown to the top of the trenches. Circumstances, however, alter cases, and those who have been favoured with good growing weather should set about blanching their earliest plantations. Remove the lower leaves and suckers, and tie up each plant with some old pieces of matting; then scatter fresh cow manure all over the soil in the bottom of the trenches among the Celery plants to the depth of about 1 inch, and water well in. This will keep the roots cool and provide nourishment for the growth of the Celery plants till the end of the season. When two or three good doses of water have been applied, soil may be put on according to the size of the plants. Make the mould fine with the spade, work it in firmly all round, and leave the surface a little lower than the heart of the plants.

J. JEFFREY.

The Gardens, St. Mary's Isle, Kirkcudbright.

THE FRUIT GARDEN.

THE LOGANBERRY AS A CLIMBER.

A FEW seasons ago I noticed that splendid crops of fruit were obtained from the Loganberry when the previous year's growth was left full length and the plant treated as a climber. In treating the plant thus a certain amount of care is required that the long, straggling shoots at this season are not

twisted or injured, as being somewhat soft once they are badly bruised growth ceases at the broken portion. The Loganberry will with good culture make shoots 12 feet to 15 feet in length, and these, if supported during their growth, will bear fruit the next season for more than three parts of their length. This shows how readily the plants may be used for pillars or to cover high fences, walls, or wire supports.

The plant being in full bearing at this season (July), my note may be more interesting, and to show how well this fruit crops in an ordinary light garden soil, three plants now occupy the space of a dozen planted in 1898, the remainder having been moved to give space. When the plants are given plenty of room the fruit is much finer.

I recently saw this plant used to cover an archway some 12 feet high. Last season we weighed the quantity of fruit from one growth or cane 10 feet long, and over 8 lb. of fruit were cleared. This year the same result will not be obtained, as we were obliged to transplant to give more room. Grown as a pillar plant, with ample space to develop, it does well, and will thrive in soil where the Raspberry fails. As regards flavour it is quite distinct, being more acid. When the fruits are used for dessert they should be fully ripe; then they are most palatable.

No note would be complete that omitted the Mahdi, a newer hybrid. The Mahdi is a strong grower. So far with us the new growths have not yet attained the size of the Loganberry, but the plants are younger; however, they promise quite as well as the Loganberry. The fruits are a little later. They more resemble the Blackberry, one of the parents, whereas the Loganberry is a longer fruit, more like a large Superlative Raspberry.

There is no doubt whatever that these new hybrids are a great gain; they are what one may term everybody's fruit. They grow well near large towns and in poor soil if given ample moisture and the old growths are cut out as soon as the crop is cleared. This latter is important, and should not be overlooked. The fruits of both these plants being produced freely, and, being very hardy, they are not so soon injured by frost. Last May our Raspberry canes were injured, but the Loganberry and the Mahdi escaped. The



ANOTHER WAY OF PROTECTING STRAWBERRIES.

latter is a sweeter fruit than the former, and may be better liked by some on this account. For preserving both are excellent. G. WYTHES.

PROTECTING STRAWBERRIES.

I HAVE read with interest, in your issue of July 1st, a good method for the above. Herewith I send you a photograph of a system devised by myself for the same purpose. The framing for the nets is made of condemned locomotive boiler tubes, purchased at 9d. apiece; they are 10 feet long, so that with 3 feet below ground, there is 7 feet between the nets and the plants. I adopt the same for my Raspberries, and the result, I consider, is that by not depressing the leaves upon the fruits, the latter are 15 per cent. to 20 per cent. larger.

Further, the nets, being used over a tube, last ever so much longer, and the height they are above the fruit simply requires one inlet to allow anyone to go underneath and gather whatever is required. The joining of the tubes is very simple, and I shall be only too pleased to send an explanatory sketch to any of your contributors.

G. H. HARRISON.

Thornton, near Ryde, Isle of Wight.

ANSWERS

TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, W.C. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

Legal Points.—We are prepared to answer questions of law which have anything to do with the subject of gardening and forestry. The questions should be as clear and explicit as possible, so that there can be no doubt as to the point of the question. Answers will be found in a separate column headed "Legal Points."

FORMING WEEPING STANDARDS (M. A. S.).—Yes, you can bud the Penzance Briars at once with good drooping kinds. It would be best to bud into three or four of the strongest laterals as near the top as possible, or the bud may be inserted in the "barrel" or main stem, providing the bark opens freely. The shoots, budded, would remain as they are until next February, when they would be out back as far as the inserted bud. Very beautiful drooping kinds are: Dorothy Perkins, Lady Gay, Jersey Beauty, Alberic Barbier, Rene Andre, *Electra, Euphrosyne, Thalia, *Blush Rambler, *Waltham Rambler, *Psyche, *Una, Felicite Perpetue, Bennet's Seedling, Flora, Rugs, *Rubin, *Crimson Rambler, The Farquhar, Debutante, and Sweetheart. Those kinds marked thus * are rather erect growing at first, but soon droop naturally.

JUDGING BY POINTS (X. Y. Z.).—It is impossible to give a satisfactory reply in brief to your request as to what is the method of judging by points. No hard and fast rule can be laid down as applying to all subjects, as each one, or rather, many of them, differ so much in their character as to require a separate scale of points for each subject. The Royal Horticultural Society has published an excellent code of rules for judging at flower shows, &c., in which the points of flowers, fruits, and vegetables are clearly set forth. In this you should procure all the information you desire. The code of rules may be obtained at the offices of the Royal

Horticultural Society, Vincent Square, Westminster, S.W., post free 1s. 6d., and this expression of opinion from many of the best experts, in concrete form, is invaluable.

GOOSEBERRY BUSHES ATTACKED (C. Bolton).—The insects attacking your Gooseberry bushes are the grubs of the Gooseberry and Currant sawfly (Nematus Ribesii). While the fruit is on the bushes it is impossible to use any spray mixtures without rendering it unfit for food, but you might strew fresh lime or kaintit under the bushes, which will probably kill some of the grubs when they fall from the bushes on to the ground. They then bury themselves and become chrysalides. In the winter the surface soil to the depth of about 3 inches should be removed from under the bushes and burnt or buried not less than 9 inches deep. In the soil so removed will be the chrysalides, and if this operation be carried out efficiently your bushes will be free from the pest next year, unless they are infested by flies from some neighbour's garden. If an attack by this insect is noticed early in the season the bushes should be sprayed with a solution of paraffin emulsion, or with Paris green, which will kill the grubs, but the spraying should take place not later than a month before the fruit is eaten, or it will be unpalatable or poisonous. Care should be taken in spraying that the undersides of the leaves are thoroughly wetted. Sometimes, when grubs or caterpillars are very numerous, their very numbers bring about their destruction, for the whole of their food supply is exhausted before they have attained maturity, and in consequence they are starved before becoming chrysalides. The wire netting has nothing to do with the presence of the grubs, except that it prevents the birds from eating the grubs and the sawflies. Few birds, unfortunately, will feed on the caterpillar, but probably flycatchers and other birds would kill the sawflies, so it is well to keep the top open as late as possible.—G. S. S.

DESTROYING ANTS IN LAWN (Priory).—You would find it difficult to use boiling water, as you suggest, to destroy ants on lawns, as this would injure the grass, and then only a portion would reach the ants. For years we were troubled with these insects, and used various so-called remedies, but to little advantage. To get rid of them we used carbolic acid; but this was too dangerous, as it completely killed the grass if used at all strong. We would advise a simple remedy, but its success depends upon its application, and that is petroleum. This with us destroyed the pest; but it must not be used too strong, a little and often being advisable. Half a pint of petroleum in three gallons of rain-water is quite safe, or a little stronger in showery weather. This should be used in the evening several days in succession, and the pests will soon select fresh quarters; they detest being disturbed, and if the petroleum mixture is frequently applied it will kill many, and the remainder will travel a long distance to get out of the way. It may be used much stronger on walks.

SOIL FOR Papyrus (J. G.).—Although the Papyrus strictly speaking is an aquatic plant, you may even grow it in a pan, tub, or pot filled with rich loam if the receptacle in which it is growing is placed in water. You will succeed best with it out of doors by having it in shallow water in a warm situation. If in the position you name the plant gets plenty of moisture most probably it will thrive. You know, of course, that it is not hardy. It is sometimes used in the summer months for sub-tropical gardening, then it is grown in a tub, the latter being filled with rich soil and placed at the edge of a pond or stream. In September the plants are moved under glass, there to be kept during winter and spring. You can increase it if you wish to do so by dividing the rhizome or root stock. There are many sorts of Prickly Pear, and you do not say which one you have. Some are hardy and some are not. The hardy

ones should be given a sunny sheltered spot where they can be protected from too much moisture. It is not the cold that kills them in winter so much as an excess of moisture. The fleshy leaves soon perish if moisture is too abundant. You could effectively shelter them in winter and wet weather by placing a hand-light over them. The following soil has been proved to suit the Opuntia, one half lime rubble, the remaining half loamy soil and peat. Place your plant in the centre of a small mound of soil some 15 inches above ground and give plenty of drainage so that moisture will drain away perfectly. You should prevent the leaves from touching the ground by placing beneath them stones or bricks, making in fact a small artificial rock work. At Kew they are grown in a small border close by and under the shelter of the great Palm house. A thoroughly well drained porous soil is what they need.

STRAWBERRIES (Strawberry).—No; the white moths have nothing to do with the appearance of your Strawberries, which are suffering from an attack of mildew. We are afraid you can do little to effect a cure at this advanced stage of maturity, for most or all of your fruits will now be ripe. After the fruits are gathered, however, you can get rid of this fungus, and by keeping your plants clean make sure of preventing its appearance next year. You should spray your plants with liver of sulphur solution, half an ounce to the gallon.

SALSIFY (W. G.).—The leaves of your Salsify plants are very badly attacked by a fungus which is very common on this and some other plants belonging to the order Compositæ (Cystopus tragopogonis). The best thing you can do is to pull up at once and burn the infested plants. This fungus only infects plants while in their seedling state, so that there is no fear of your plants infecting other full-grown ones, but it is well to get rid of diseased plants at once. You should be careful next year not to sow your Salsify near soil that has borne an infested crop. The injury to your Sweet Peas has nothing to do with the above fungus. They are apparently attacked somewhat freely by green fly, but I do not think that is the cause of blanching of the leaves, which must be due to some want of proper root action in some way, though it is quite possible it may be due to some atmospheric check.—G. S. S.

RENOVATING LAWN (E. Bertram).—The month of March or early April are the best times for sowing lawn seeds, and we should advise you to wait until then before sowing. If you do not do this the next best time for sowing is the end of August, for then the young grass is able to become established before winter. If you are going to turf the lawn you must allow a reasonable time to elapse between digging and levelling the ground and laying the turf or you will not obtain a level and satisfactory lawn. The best plan would be to turn over the turf in the autumn, and dig the whole surface over 12 inches deep. Let it remain rough throughout the winter, and in spring the influences of frost and weather will have solidified it and brought it into good condition for treading and raking down, in preparation for sowing or turfing. In making a lawn you are performing a work that if well done will give great pleasure, but if improperly and hurriedly done it will always be disappointing. You will probably have a good many inequalities in the lawn if you sow soon after digging is over, and it is difficult to remedy them afterwards. However, if you have made up your mind to sow in August, turn over the turf at the end of July, leave it rough for a fortnight, then level and make quite firm for sowing. Japanese Irises ought to grow under the conditions you name, and you would doubtless find that Lobelia cardinalis Queen Victoria (a most effective plant with bronze-red leaves and scarlet flowers) would thrive well also.

MARECHAL NIEL UNDER GLASS (T. W. D.).—If you desire flowers next season do not prune the plant at all; this fine Rose is mutilated far too much. Providing you have plenty of space available we should advise you to be very sparing with the knife. The object should be to have plenty of well-ripened growth produced this summer, and you are apparently on the right track for this. Thin out where shoots are at all crowded by cutting them clean away, but do not shorten any at all this season. Water liberally during summer, but withhold water when ripening off wood, which would be about September. Just before starting the Rose again in winter the ends of shoots may be removed and all growths tied out in such a manner that light and air may enter freely among them.

BRANCH OF CHERRY TREE DYING (E. M. B.).—This is a common occurrence, and is usually caused by a disease called gumming—a swelling of the bark and an exudation of a gum-like substance from the affected part. Sometimes the bark is not broken, but the diseased part assumes a sickly, shining appearance; in any case, the circulation of the sap is destroyed, hence the paralysis of the branch affected. The cause of this disease is not known, some attributing it to frost-bite in early autumn when growth is soft, or a bruise of the bark may be the cause. In any case it is not very serious, as we have known trees bear well for thirty years, although badly affected by it. The same applies to the Black Currant tree.

SPOTTED PEACH LEAVES (H. H.).—The cause of the spots on the Peach leaves we attribute to the agency of an overdose of some insecticide, either by syringing or fumigation. We have seen similar injury caused by the too strong application of XL All or of nicotine. You will, of course, know whether this has been the cause or not. Too heavy an application of some highly concentrated manure would have a similar result. Instances have been known of plants of *Humea elegans*, when grown in the same house, having a similar deleterious effect on Peach trees, or it may be as you suspect, too much moisture in the atmosphere, with insufficient ventilation early in the morning while the sun was hot. The Peach suffers more than any other fruit from dryness at the root, but, judging by the free growth of the shoot and the well-developed leaves, we do not think it can be this.

BLOOD MANURE (J. W. Cripps).—Blood is a powerful manure; it is rich in nitrogen and certain valuable salts. It may be used as a top-dressing for Chrysanthemums and Vines, and also Apple trees with advantage, but not for Melons. Blood may be applied to the soil in a liquid state; but if applied in this way it must be used immediately or it will soon coagulate and decompose. A good proportion to use in this way is half a pint to three gallons of water; but it is best to use it in a dry state, when it can be powdered or sifted small and mixed with mould for top-dressing purposes in the proportion of one pint to one bushel of soil. The best time to apply it to Chrysanthemums is after the final potting, when the pots are filled with roots, and to the Vines after the second thinning of the berries, and again after the stoning period. It should be applied to the roots of Apple trees in winter or spring, and covered over in early summer with a mulching of short stable manure; this will prevent the waste of nitrogen by evaporation.

SOIL IN POTS BECOMING GREEN (W. Morris).—More than one reason can be assigned for soil becoming green on the surface, but a common cause is insufficient drainage, as this sets up a stagnant condition of the soil unfavourable to the roots of the plant and doubly favourable to that green mossy growth which soon overspreads the surface. On the other hand, some soils, however treated, are liable to turn green on the top, the reason being that one or more of the

ingredients contain spores which, being placed under conditions favourable to growth, soon develop and cover the surface of the soil. No matter what the cause may be the method adopted for its removal is the same, and that is to allow the soil in the pot or pots to become fairly dry, then, with a flat piece of wood (a label will do) fashioned off at one end like a chisel, take off the green portion in as thin a cake as possible. After this, loosen the surface a little with the pointed stick, in order that the air may have play through the loose soil, as this will greatly check the formation of the green substance.

SWEET PEAS ON SOUTH BORDER (*Opoponax*).—It is not the position we would select for choice; but whether or not success is to be attained depends not only upon the cultivation but equally upon the character of the soil. Of the latter you give us no idea; but the chances for success would be more favourable in a somewhat clayey loam than in a light or very sandy soil. The cultivation you must enter into thoroughly, trenching the ground as deeply as the soil will permit, forming a trench at least 1 foot wide, and putting in in autumn a heavy layer of well decomposed manure at 12 inches from the surface. The upper soil should be given a little shorter manure, with a light lime dressing—the latter in winter—and to be forked in during January. You will do well to sow your Peas in pots, in a frame if possible; but if not this, sow quite early in the open. Arrange the surface of the row so that it forms a depression 2 inches to 3 inches deep; this will be of service when earthing up and for watering. Of course you know that the Sweet Pea in very hot positions is shorter lived. *Alstroemeria aurantiaca* is a hardy plant that would revel in the position, given like treatment, and last for a score of years. This could be planted 8 inches deep in autumn.

ROSE WITH MALFORMED BUDS (*A Lover of Roses*).—Nothing you can do will alter this Rose, for it is notoriously a bad opener—that is, its flowers are too double to expand in our climate. The variety is Marie Guillot. Do not trouble any more about it, but grow something that will succeed like the glorious Hon. Edith Gifford, Frau Karl Druschki, Pharisaer, Mme. Abel Chatenay, &c. You could bud into the new shoots any of the beautiful Roses named or any other sort you fancy. Insert the buds near the main stem into such shoots as have sprung out this year.

TREATMENT OF PELARGONIUMS (*C. M.*).—The genus *Pelargonium* is such an extensive one, and the various sections need such different treatment, that no hard and fast line can be laid down in this respect. If, however, you refer solely (which we are inclined to think is the case) to what are by some termed large-flowered Pelargoniums, which embrace the show, French, decorative, and regal sections, and as a class stand out quite distinct from the zonal, Ivy-leaved, and others, we will limit our reply to the members of this group. As a rule, these flower from April onwards till June is well advanced, but directly the blossoms are past the plants should be cut down hard, that is to say, within 3 inches to 6 inches of the pot, according to their size. The cut-down plants must then be laid on their sides in a sunny spot out of doors for ten days or so, then stood up and watered. In a week or thereabouts the young shoots will begin to push forth, and then is the time to repot the old plants. A soil composed of two-thirds good turfy loam, one-third leaf-mould, and a little sand will just suit these Pelargoniums. In potting, the old soil should be shaken entirely away and the plants put in pots considerably smaller than they were in before. The potting must be done firmly, and when finished it is necessary to place the plants in a good light position, such as a greenhouse with plenty of air and light, a frame that may be left open except during very heavy rains, or even on a firm bottom in an open spot out of doors. They must be

wintered in the greenhouse, giving plenty of air whenever possible, and about the end of February or early in March shifted into their flowering pots. Some cultivators, however, prefer to do this in the autumn. In reference to your question concerning cuttings these must be formed of the shoots which are removed when the plants are cut down. The sturdiest shoots should be selected, that is to say, those which promise to make the most satisfactory plants when rooted. A length of 3 inches to 4 inches is very suitable for the cuttings, which should be cut cleanly off at a joint, and the bottom leaves, if any, being removed, they are then fit for insertion. For this purpose pots from 4 inches to 5 inches in diameter are very suitable, and these should be prepared by placing broken crocks in the bottom for one-third of the depth, and then fill with a mixture of loam, leaf-mould, and sand in about equal proportions, and press down firmly. Into this dibble the cuttings, taking care that they are fixed securely in position; then place on a shelf in the greenhouse or in some similar spot. No shading will be needed, nor must too much water be given. In about a month the cuttings will be sufficiently rooted to pot them off singly, pots 3 inches to 4 inches in diameter being very suitable for the purpose. The soil and other matters will be about the same as that for the potting of the cut-down plants. As soon as the cuttings have taken hold of the new soil the tops should be pinched out in order to encourage a bushy habit of growth. A few of the most advanced of these young plants may be potted in pots 5 inches to 6 inches in diameter in September, or they may all be left till early spring. Manure-water will not be needed till the plants are well established in their flowering pots. The sticky substance complained of is the deposit of aphides or green fly, which will quickly injure the plants if allowed to remain. By destroying the insects the deposit will be prevented. This can be easily done by vapourising with the XL All Vaporiser, which is of very great service in every way to the plant grower.

SEEDLING ORANGES (*H. Morris*).—These, like seedling Apples, will in time fruit, but in both cases they need to attain a good size before that takes place; indeed, both may be regarded as trees. Something might be done by grafting to hasten the production of fruits, but even then the common Orange will need a structure larger than a small greenhouse. Fire-heat during the winter, too, will be absolutely necessary; that is to say, the thermometer at no time should be allowed to fall below 40°, and it may safely rise during the day 10° higher. The Orange that may be often seen fruiting very freely in quite a small state is the Otaheite Orange (*Citrus japonica*), which is grown largely on the Continent and sent to this country in considerable numbers. This can be readily obtained, especially in the autumn, from most nurserymen.

CUCUMBER LEAVES SPOTTED (*J. H.*).—We are glad to know that the remedy applied of cutting away the diseased leaves has had the effect of bringing your Cucumber plants round again. This proves, as we suspected it would, that the complaint your plants are suffering from is not the fatal fungus spot, as no remedy as far as we know has been found for this disease. As a possible preventive of the disease the plants have been subject to during the last few years, we should advise our correspondent the next time he sows his seeds to steep them before sowing in the following solution: Place a piece of sulphate of copper the size of a pigeon's egg in a pint jar, fill this with hot water in order to dissolve the sulphate, when cool put in the seed and let it remain five minutes, then draw out and dry before sowing. According to a writer in the *Gardeners' Chronicle*, this has apparently been successful in warding off the Tomato disease for two or three seasons, and it may be equally successful with the Cucumber; any way, being so simple it is worth trying.

GIANT FRENCH ROCK MELONS (*F. W.*).—The small fruits fetch about 4s. each, and the large ones from 10s. to 15s. They cannot be grown with success here.

ABNORMAL GROWTH OF A ROSE (*W. E. A.*).—The appearance of a Rose bud within a Rose is caused by the same conditions that favour the green-centred blooms—that is, check to growth. In the early spring, when the buds are in embryo state, a frost comes and chills the growths and buds, and, instead of beautiful-formed Roses, we obtain these curiosities. Other causes, such as over-manuring, is sometimes responsible for the trouble. It is best to be on the alert in the spring and well syringe the frozen plants before the sun rises, for it is the sun that really does the mischief.

TOMATOES DAMAGED (*Tomato*).—Your Tomatoes have every appearance of having been scorched. There is no disease, yet the tissue has evidently been damaged. As it is only at the base of the fruit that the mischief occurs, our supposition is strengthened, for it is at that point that the sun would shine on the fruits most strongly. If the house had been closed at night and was not opened early on a hot morning, the sun pouring down on the moist fruits might scorch them. If you have given the plants liquid manure, and in doing so allowed some to remain on the fruits, the sun shining upon them would have the same effect. Give your Tomatoes plenty of air at this time of year, and keep a little on the house all the night, increasing it early in the morning if the sun is bright. Allow the leaves to shade the fruits this hot weather. Do not cut off any.

SKELETONISING LEAVES (*A. Russell*).—Skeleton leaves come about through the epidermis or skin of the leaf being decayed and washed away, and, therefore, this can be done by soaking in rain-water, which is tedious; but another and quicker process is to boil them in alkali (soda) water, then bleach with a solution of chloride of lime. Of course, Oak and Beech leaves can be done, but not so readily, as their skin is tougher. It is impossible to dry leaves and flowers in their correct (natural?) shape, but by pressing their several parts carefully between paper and then arranging afterwards, they may be made to represent the natural shape very nearly. Branches of some trees, like Oak and Beech, can be dried with their leaves on, by simply standing them in a pot in a room, also certain kinds of rushes and grasses, without any pressing. We do not understand whether you want the names of plants which bear leaves suitable for drying, or names of the different shapes or characters of leaves.

STEM-TUBERED POTATO (*A. R. G.*).—The stem tuberization of Potato plant sent is not uncommon. We have frequently seen similar phenomenon, as you describe it. This tuberization is invariably caused by some injury to the bark of the stem, generally below ground, the rind being either eaten by a grub or mole, or, as in your case, doubtless by a mouse. When the stem is thus disbarbed, the sap, elaborated in the leaves into the form of starch granules, cannot pass down, as should be the case, into the roots to assist in the formation of tubers because of the destruction of the rind or alburnum of the stem. Hence the sap so far asserts itself as to force what would be leaf-buds at the axils of the leaves into tuber-buds, and these tuber-buds swell up and practically become air or stem-tubers. That is the sole explanation of what is to many persons a vegetable curiosity. Sometimes Potato plant stems severely twisted and injured by strong winds low down have developed similar tubers.

SCAB ON APPLES (*W. B. W.*).—It matters little from what the Apple or, indeed, other fruit trees may be suffering, in nine cases out of ten the cause will be found in bad root action. The roots have got down into sub-soil that is devoid of proper food. It is perhaps sour, or

lacks air. The best course to take with such trees is, if they are not too old, to partially reduce their heads in October, then carefully to lift them, remove some of the sub-soil, and replace it with good surface soil from the vegetable quarters; then replant more shallow, even rather on mounds. Put a mulch of long manure over the soil of each tree when planted. If trees are too large or too old to lift entirely, open a trench around each one 2 feet wide and deep, and 4 feet from the stems. Fill up the trenches with good fresh soil, then remove a few inches of the surface into the trench, and replace with fresh soil with which is mixed some well-decayed manure. Then over the roots of each tree to wash in during the winter strew half a pint of basic slag. That treatment should have a most beneficial effect. In the winter make up a solution of caustic or commercial soda, pearl-ash, and soft soap, 1lb. of each. Dissolve in a bucketful of boiling water, then pour into a tub and make the whole with water to 10 gallons. Spray the trees with that mixture twice or thrice in mild weather during the winter.

GRAPES MILDEWED (*J. C. Taylor*).—There is no doubt that your Grapes are attacked by mildew, and the proper remedy to apply is sulphur in some form. A very convenient way is to obtain flowers of sulphur, which you may do from any nurseryman or horticultural sundriesman, and dust it upon the mildewed berries and leaves. You may also smear the hot-water pipes with a mixture of sulphur and water, and close the ventilators; great care, however, must be taken not to make the pipes too hot or the leaves will be damaged. We should advise you to dust the berries and leaves affected with flowers of sulphur; it is safe. In a few days time it may be gently syringed off with clear soft water, not hard water, for this would disfigure the berries. You say the top lights are left open day and night, so we are not surprised that mildew attacks your Vines. The house should be practically closed at any rate at the top on damp nights, and there should be a little heat in the pipes to dispel moisture. The spores of the mildew fungus can only germinate when a certain amount of moisture prevails, therefore a damp, stagnant atmosphere should be avoided.

CARNATIONS UNSATISFACTORY (*Emily Parr*).—Judging from the state of the flower-stems, we should say that the plants have undoubtedly received some check to growth. This may be, and probably is, due to their having been dry at the roots at some time or another when they were growing quickly. Another probable reason is poorness of soil. You say that the soil is gravel. Even apart from its poorness this kind of soil is very apt to get dry quickly, and we are afraid your plants must have suffered in this way. You say also that there are wireworms in the soil. We should advise you to get rid of them by liming the soil in the autumn, otherwise they are certain to attack the plants sooner or later. Sometimes they do not kill the plants outright, but attack the roots in such a manner that the plants make practically no growth at all. They may have affected your plants already. In any case they are very dangerous pests in the soil. You must add some loamy soil and manure to your ground in the autumn.

VITIS ROMANETTI (*H. T. Elwes*).—This Chinese Vine is not so readily propagated as some members of the family, and failing seeds, which are sometimes obtainable, the two courses of increase still open are by cuttings and layers. The best cuttings are formed of shoots of medium vigour, taken off with a slight heel when they are about 4 inches in length, dibbled into clean, well-drained pots of sandy soil, and placed in a close frame, shaded when necessary from the sun till rooted. A frame where there is just a little heat is best, but failing this an ordinary garden frame kept close will do. If you have a strong plant or two layering is often a very convenient mode of increase; that is, if a long shoot or

shoots can be brought down to the ground. The shoot may be layered throughout its entire length, tonguing just below each joint, as by so doing each one will produce roots and push a young growth from every eye, so that when sufficiently advanced the buried shoot will have formed as many plants as there are joints. If you layer your plant now it will not be sufficiently rooted to be disturbed before the autumn of next year, but most probably it will be far enough advanced in the course of the summer to divide the stem between each joint, so that every one will when lifting time comes form a separate plant.

CULTURE OF AMARYLLIS (*Delta*).—After flowering, the plants of *Amaryllis* should be kept in an intermediate house—that is, a structure where a temperature of 55° to 70° is maintained. They must be watered regularly as before, the object being to encourage good free growth, as this plays an important part in the display of flowers for another season. Then by July the plants may, if necessary, be removed to a frame facing south, and the lights left off unless to shelter from heavy rains. They will need to be regularly watered until the leaves begin to turn yellow, when less water must be given, and finally, when totally dormant, it may be discontinued altogether. By September the bulbs should be taken into their winter quarters, where a temperature of 45° to 55° or a little more is maintained. The bulbs are best if kept quite dry during the winter months, that is if they are not near hot-water pipes or so situated that in any way the soil becomes absolutely parched and the roots are likely to suffer, in which case a little water may be given. By the end of January the soil should be slightly moistened, and as the leaves push up more water will be necessary. A good light position in a temperature of 50° to 65° is then best for them. At one time *Amaryllis* were repotted every year; now, if the roots are in good condition, they are often allowed to stand two or three years without repotting. When necessary, it is best done at the end of January, before they start into growth.

SOIL SAMPLES (*G. W. Dublin*).—The soil samples sent, top and bottom, are identical in quality—sharp, thin sand, extremely porous, and entirely lacking body. It badly needs the introduction into it of several inches of clay, spread about on the surface of bare portions of the ground in the early winter for exposure to the frost, then broken more finely and dug in with some thoroughly decayed horse manure, or, better still, cow manure. Whilst the soil is deficient in plant food—a fact obvious from its very nature without subjecting it to analysis—yet it can be made more fertile, both by the course named, and, further, by adding to the cultivated depth by trenching and well working the bottom 10 inches of the sub-soil, which by well breaking up and adding to it a good dressing of rotten manure, leaving it at the bottom of the trenches until after two or three years, it becomes as fertile as the top, when the entire 20 inches in depth might be well mixed. It may not be wise to attempt to break up the sand and gravel base below the 20 inches of soil, as that is of necessity exceedingly porous, and naturally causes water to escape rapidly. There is no possible corrective of the texture of such soil except by adding clay, and so far as possible cow or well-decayed and saturated horse manure. You may mitigate the porosity of the soil somewhat by giving about all trees and crops, so far as possible, mulches of manure, as those will check evaporation; but, of course, such mulchings may be out of your power to furnish. In any case, do not hesitate to break up the sub-soil, to mix with it strong wet manure, and where lacking manure mulches keep the surface of the soil freely stirred with a hoe, as a loose fine surface in that way helps to preserve moisture.

NAMES OF PLANTS.—A. M.—Too shrivelled. If you will send another specimen carefully packed we shall be pleased to name it.—Mrs. Amsden.—The variety we believe to be Climbing Souvenir de Malmaison. As to its culture, allow the plant to grow freely, pruning it but very sparsely. Spread the growths out well, and give liquid manure at frequent intervals if planted against a wall.—E. F.—Shrivelled up, but probably an Ixia. J. Y.—1, Lycaste Deppel; 2, Lavatera arborea variegata; 3, Marchantia polymorpha; 4, Caladium maculatum; 5, Linaria Cymbalaria.—G. A. K. (British Columbia).—Geum coccineum.—W. West.—Acoena Inermis, Sedum angulare.—Thyme and Paton.—Thladiantha dubia.—Rottingdean.—Nepeta Mussini.—Mrs. Sanders.—Verbascum nigrum var.—F. C. M.—1, Lilium testaceum; 2, Zephyranthes candida probably, specimen too faded to be certain; 3, Digitalis lutea.—W. J. More (Epping).—Polygonum Bistorta, a native plant which spreads rapidly when established. The best way to get rid of it is to dig up the roots.—J. Henshaw.—Lathyrus sativus.—Roberts.—1, Origanum vulgare; 2, Melissa officinalis variegata; 3, Tanacetum vulgare; 4, Calamintha officinalis; 5, Chrysanthemum P. rhenium; 6, Artemisia Absinthium.—V. A. M.—Iris foetidissima; the flowers of this plant vary a great deal in colour, from purple to yellow. The specimen sent is a pale-coloured variety.—F. E. S.—The pink flower is Saponaria Vaccaria; the other Hibiscus sp.—Alma.—Funkia ovata, or the Plantain Lily.—Sojourner.—Roses: 1, Jules Margottin; 2, Catherine Soupert; 3, Auguste Rigotard; 4, Alfred Colomb; 5, Helen Paul; 6, Paul Neyron; 7, Alphonse Soupert; 8, General Jacqueminot; 9, Francis Levet; 10, Harrison Weir; 11, Crown Prince; 12, Claude Levet; 13, Senateur Vaisse; 17, Baron de Binstetten; 21, John Hopper.

SHORT REPLIES.—James Smith.—The enclosed specimen is in no way related to the Celosias, but belongs to the same natural order as the Spinach, and it is in all probability an usually stunted form of Atriplex hortensis, an annual which occurs in various parts of the world. It is, as you say, interesting, but we question if even by continuous and rigid selection any good could be done with the plant, as there is such a decided appearance of weediness about it and its immediate allies. Still, one can readily understand the sender of the seed describing the plant as handsome, for in a mass where fully exposed to bright sunshine it might in a wild or semi-wild spot form a striking feature, but as a garden plant it would, we think, be out of place.—M. R. Rynd.—It is impossible to give you any reliable information about your seedlings without knowing what they are. You cannot, however, go far wrong by placing them in a warm house, and if you see signs of their drawing or becoming weak, reduce the heat. A compost of half peat and half loam with a good quantity of silver sand will be suitable for them. As soon as the seedlings are large enough to handle prick them out separately in small pots, giving larger pots as required.—E. B. S.—Try planting in a more shady place. From the appearance of the specimen sent it evidently is planted in too dry a position, but without knowing conditions one cannot be certain. It often goes two or three years without flowering after being planted.—B. J.—It is impossible to give a satisfactory answer to your letter without more information. Please write again, and we will try and help you.—T.—Evidently the failure of the plant is due to the very hot weather which we have experienced recently.

LEGAL POINTS.

NUISANCE CAUSED BY BEES (*E. S.*).—If the owner of land cannot make proper use of it, owing to a nuisance caused by bees belonging to an adjoining owner, he can sue the proprietor of the bees for an injunction. As you are only the foreman and not the owner of the land, your proper course is to communicate with your master and get him to take action. No doubt a letter from your master, or his solicitor, to the owner of the bees will have the desired effect.

MISCELLANEOUS.

PHARMACEUTICAL DEPUTATION TO THE PRESIDENT OF THE BOARD OF AGRICULTURE.

FOR years past farmers, gardeners, and the public have been put to the greatest possible inconvenience in obtaining poisonous compounds for use in agriculture and horticulture. Both animals and crops have suffered through inability of owners to obtain valuable remedies expeditiously.

In May last, a deputation from the Traders in Poisonous Compounds Protection Society attended before the president of the Board of Agriculture for the purpose of bringing this matter before him, and to point out what a great drawback this was to those important industries.

The president was greatly impressed by the unlenient evidence brought before him by the members of this deputation; he has strongly expressed himself in favour of an alteration of the law on the lines desired by farmers, gardeners, general traders, and the public.

The Pharmaceutical Society has thought it well to imitate the traders in poisons, and the Right Hon. A. Fellowes, M.P., consented to receive a deputation from the chemists.

This interview took place at the House of Commons on Monday, July 3. The deputation consisted of Mr. R. A. Robinson (president); Mr. A. C. Wootton, a journalist; Mr. W. G. Cross, a country chemist; and others.

Mr. Robinson was the principal speaker, pleading for the maintenance of the present monopoly of the chemists, and endeavouring to persuade Mr. Fellowes that no necessity existed for an alteration of the law. The reply given by this gentleman must have strongly impressed Mr. Robinson and the other members of the deputation that he decidedly thought otherwise. Mr. Robinson took occasion to make the remark that the traders (other than chemists) who desired to have the right of selling the poisonous compounds necessary for use in agriculture and horticulture would not be satisfied to accept the rules and precautions which are to be laid down for their guidance. This remark brought a quick retort from the president, who said, "All I can say is that when I told them (the traders in poisons) we should be very strict as regards such regulations, there was not one single word said by them against it."

Mr. Wootton followed the president, and, aided by his journalistic knowledge, went into a lot of statistics quite irrelevant to the question.

Mr. Cross followed, and proved himself an excellent pleader for the maintenance of the chemist's monopoly. He paid a very bad compliment to the business capacity of farmers by making the following statement: "If the sale were thrown open, manufacturers would doubtless employ agents who would travel through the markets and get hold of farmers, for it is easy to get hold of some farmers, and would induce them by some means to buy as much of these poisons as it happened to be the interest of the agent to sell." That cannot surely be to the public interest; such argument as this is ridiculous, and must fall to the ground when considered by any person of common-sense. When the law is amended and the power of administration, so far as poisonous compounds for trade purposes are concerned, placed in the hands of capable public officials, everything will work satisfactorily, and the public convenience will be properly served.—G. H. RICHARDS, 234, Borough High Street, London, S.E., in *Horticultural Advertiser*.

TRADE NOTES.

THE STREBEL BOILER.

THE Strebel Sectional Boiler is composed of upright, O-shaped sections, with hollow spaces which contain the water. The sections are connected at top and bottom by means of push nipples, and are constructed in such a way that when joined up into boilers the smoke-flues are formed. Heavy grate bars are cast on to the lower part of each section, and so effectively cooled by the circulating water that the formation of clinkers is prevented, and the grate transformed into a powerful heating surface. These boilers are manufactured for hot water and for low-pressure steam. Among other advantages of this boiler are the following: Rapid heating, minimum heat losses, simple and sure regulation, little and easy attention, perfectly safe working, easy cleaning, and no repairs. The Strebel Boiler is manufactured by R. O. Meyer, Limited, Norfolk House, Norfolk Street, London.

AN IMPROVED SUMMER-HOUSE.

THE summer-house shown in the accompanying illustration was made and designed by Messrs. W. Wood and Son, Limited, Wood Green, N. It is quite a new design and a most effective one. In addition to the summer-house, there is a terrace attached, a delightful adjunct, where tea might be served or chairs placed for sitting or reading out doors; in fact, this new summer-house has many advantages over the ordinary one. The structure shown in the illustration was exhibited by Messrs. Wood and Son, Limited, Wood Green, N., at the recent Chelsea show of the Royal Horticultural Society. This design lends itself excellently to effective decoration with plants and flowers. Full particulars may be had from Messrs. Wood and Son.

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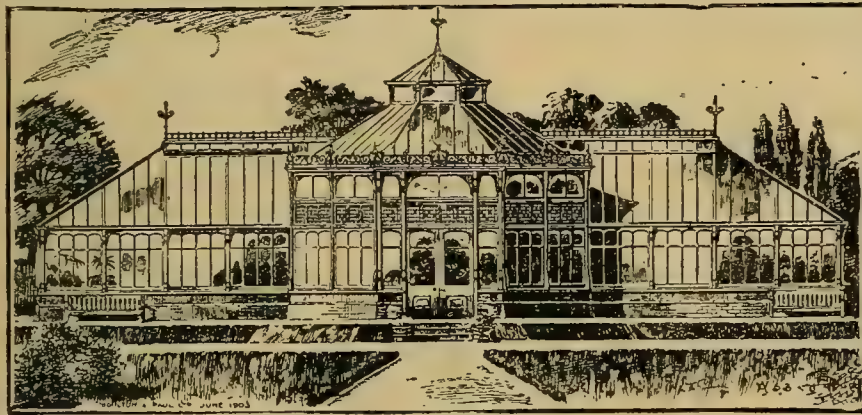
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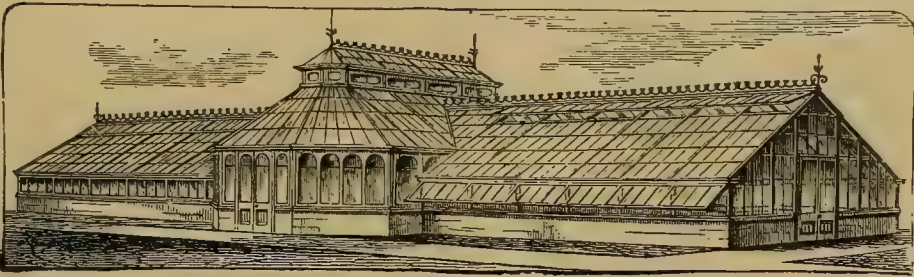
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SOCIETIES.

WIMBLEDON FLOWER SHOW.

The thirty-third annual exhibition of the Wimbledon Royal Horticultural Society was held on the 19th inst. in the Football Ground, Worples Road. One of the best features of the show was made by the pot plants, those of Gloxinias, Begonias, and zonal Pelargoniums being excellent. The groups of plants, too, were very good. A good many special prizes were given in addition to the ordinary schedule prizes. The principal Rose class was for twenty-four cut Roses, and the best were shown by Mr. J. Wormald, Morden Park. Mr. W. Barnett, gardener to G. H. Williamson, Esq., Currie Hill, won the special prize for six Carnations, the best eighteen herbaceous flowers being shown by Mr. S. Wilson, Old Rectory (gardener, Mr. W. Smith). The last-named exhibitor won the first prize (offered by Messrs. Thomson and Sons, Wimbledon) for a collection of vegetables, and Mr. J. Wilkins, gardener to J. Bridgewater, Esq., won Messrs. Sutton's first prize for vegetables. Mr. G. Hutton, gardener to G. E. Frere, Esq., had the best decorated fireplace; Mr. A. H. Burgess, Cromwell Road, the prettiest dinner table decoration; and the first prizes for groups of plants were won by Mr. J. Downing, gardener to Dr. Cornstock, and by Mr. Thornton, gardener to T. E. Crocker, Esq. Mr. A. Skeggs, gardener to Mrs. Dann, was the most successful exhibitor of pot plants, and his Gloxinias were splendid. Messrs. D. S. Thomson and Sons, Wimbledon, showed a beautiful collection of hardy flowers, Roses, and a plant group, and Mr. Nash exhibited a group of plants.

COMMEMORATION DAY AT STUDLEY CASTLE.

The annual flower show and fête at the Lady Warwick Hostel took place in lovely summer weather on the 19th inst. The show consisted of flowers and vegetables grown by the students, honey, jams, jellies, bottled fruits, and bottled vegetables, and was a most creditable exhibition; poultry, eggs, live birds, and cheese being shown at the same time from the Women's Agricultural College. In the castle the table decorations were shown in the drawing-room, and the competition was very keen, fifteen in one class. After a careful scrutiny the prize fell to a very pretty arrangement of the blue *Scabiosa caucasica* and the white *Francoa*, with *Asparagus tenuissimus*. For the other table prizes to former students, the award fell to a pink arrangement of Dorothy Perkins Roses and Carnations. Elegant vases of wild and garden flowers, sprays, round bouquets, and baskets did great credit to the students for taste and skill. The first prize "knot" was of small *Odontoglossum* and yellow *Oncidium*, very graceful, but the buttonhole flowers were not so good. The Sweet Pea classes were well filled, and the classes for garden flowers made a brave show. In the section for plans there were two excellent exhibits, one for an acre garden surrounding a villa and the other for a pleasurea near the hockey ground. Needless to say the jams and bottled fruits were of high class, and there is a good and constant demand for them, no less than 1,000lb. of marmalade alone being made in a season, and 700lb. of Strawberry jam.

The gardens were also inspected critically. The old pot Peaches and Nectarines from Reading had borne good crops, and the wall trees were in excellent condition. The Tomatoes were very promising; every care is taken to follow up each crop by a succession. The same care was evidenced in the vegetable department; no light task to keep up a supply for such a large establishment. The position of Studley Castle is very picturesque, and it is surrounded by ample grounds.

The Countess of Warwick took the chair, and the Warden (Miss Bradley) read an excellent report, which stated that no less than seven students passed the Royal Horticultural Society's examinations, one (Miss Tait) gaining a gold medal. Other successes were gained in poultry, dairy, and bee-keeping work. The report was proposed for adoption by a Canadian gentleman—Mr. Wilson, K.C.—who made an admirable speech. It was seconded by Mr. George Bunyard, V.M.H., and the judges were thanked by Mr. N. C. Muntz, Mr. Joseph Cheal responding.

Lady Warwick made an excellent speech, and her son, Lord Brooke, declared the exhibition open. Mr. Brooke Hunt of the Board of Agriculture also spoke. The show was well attended, and the arrangements made by Miss May Crooke for the carrying out of the show were excellent. Beyond Messrs. Cheal and Bunyard, Mr. Pettigrew and Mr. W. Igguiden assisted as judges.

NEWCASTLE FLOWER SHOW.

IN marked contrast to previous shows of the Durham, Northumberland, and Newcastle Incorporated Botanical and Horticultural Society, the three days' exhibition which opened on the 19th inst. in the Recreation Ground, North Road, was attended with ideal weather. The society is fortunate, however, in having many generous supporters, who have invariably come to the rescue, and the organisation was never in a more healthy and vigorous state than it is to-day. A record was established in the number of entries, as many as eighty competitors exhibiting, some of whom were represented in over a dozen different classes. An outstanding feature which attracted general notice was the display of Sweet Peas. The fine display was the more notable as the dry weather this season has not been in their favour. For a collection of six distinct varieties, the first award went to Mr. W. Mark, Corbridge (gardener to Miss Wuschamp), and a special prize and silver medal

for twelve varieties were awarded to Mr. Edward Keith, Cambo (gardener to Sir G. O. Trevelyan, Bart.).

The show of Roses was also excellent. Mr. Hugh Dickson, Belfast, secured first prize and the society's bronze medal for the collection of Roses arranged for effect, and for twelve varieties the silver medal and first award went to Messrs. G. and W. H. Burch, of the Rose Nurseries, Peterborough. The collection of table decorations elicited much admiration, the display being pretty and effective. In this class the silver Flora medal of the Royal Horticultural Society was awarded to Mr. T. Battensby, Blaydon, for a most artistically-arranged display. Messrs. Harkness and Sons, Bedale, took the bronze medal of the Royal Horticultural Society for a beautiful collection of hardy herbaceous flowers. One of the most pleasing features of the show was the array of plants, &c., sent by well-known firms for exhibition only. Mr. Moffatt, parks superintendent, looked after the arrangement of the marquees, and the secretarial duties were efficiently discharged by Mr. I. B. Reid.

WOLVERHAMPTON FLORAL FETE.

THE famous three days' floral fête of the Wolverhampton Horticultural Society was held on July 11, 12, and 13, and never under more favourable conditions. There was an admirable show, and the secretary, Mr. Barrett, deserves all praise for his excellent arrangements. The groups of plants are a feature here, and the first prize was won by Messrs. Cypher and Sons, Cheltenham, with a most effective arrangement. Mr. William Vause was second, and Messrs. Artendale were third. The best specimen plants were also shown by Messrs. Cypher; Mr. Vause being second. Messrs. Cypher also took first prizes for six Orchids and for twenty specimen plants. The best group of flowering plants was shown by Mr. R. Sharpe, gardener to H. Lovatt, Esq. The first prize for a group of Begonias was won by Mr. F. Davis, Preston. Mr. J. E. Knight, Wolverhampton, won the silver cup offered for a display of plants, floral decorations, &c., with a splendid display.

In the great Rose class for seventy-two blooms, distinct, Messrs. Alex. Dickson and Sons, Limited, Newtownards, were first with a fine lot of blooms; Mr. Hugh Dickson, Belfast, being second; Messrs. B. R. Cant and Sons, Old Rose Gardens, Colchester, third. Messrs. A. Dickson were also first for forty-eight blooms, distinct; second, Mr. Hugh Dickson; third, Messrs. B. R. Cant and Sons. For twelve blooms of new varieties Messrs. Alex. Dickson were again first; second, Messrs. B. R. Cant and Sons. Mr. Hugh Dickson, Belfast, won for twelve blooms of one variety with his splendid new variety *J. B. Clark*.

Among the Sweet Peas Mr. T. Jones, Ruabon, was first for eighteen varieties and for twelve varieties (prizes offered by Mr. Eckford). Mr. Robert Sydenham offered prizes for Sweet Peas, and these classes brought a very spirited competition. Mr. T. Jones again won first prize with a splendid lot of flowers.

Mr. E. Beckett, Aldenham Gardens, won the first prize for a collection of vegetables (twenty-four kinds) (prizes given by Messrs. Sutton and Sons); second, Mr. B. Ashton. For the prizes given by Messrs. Webb and Sons, Wordsley, Mr. B. Ashton was first.

In the classes for floral decorations, the Leamington Nurserymen and Florists Company won the first prize for an Orchid bouquet. Messrs. Jenkinson and Son were first for a bridesmaid's bouquet.

The best collection of eight dishes of fruit was shown by Mr. J. Doe, Rufford Abbey Gardens; second, Mr. Goodacre; third, Mr. Bannerman. For six dishes of fruit Mr. Bannerman was first. Mr. J. Doe had the best four bunches of Grapes; and Mr. R. Nisbet the best two white bunches. The finest Peaches were shown by Mr. B. Ashton, Latham Park Gardens, Ormskirk. Messrs. Jenkinson were first for dinner table decoration. Messrs. W. Pemberton and Son, Bloxwich, were first for an arrangement of Pansies and Violas.

There were non-competitive exhibits from Messrs. R. Smith, Worcester; J. White, Worcester; Dobbie and Co., Rethesay; Sutton and Sons, Reading; Dobbs and Co., Wolverhampton; Jarman and Co., Chard; Webb and Son, Wordsley; Clibran and Sons, Altrincham; Bakers, Wolverhampton; John Forbes, Hawick; Hewitt and Co., Solihull; C. W. Breamore, Winchester; Robert Sydenham, Birmingham; E. Murrell, Shrewsbury; and the Wolverhampton Corporation.

NORTH LONSDALE ROSE SOCIETY.

THIS famous society held a splendid show recently in Tod Busk Park, Ulverston, kindly lent by Mr. F. J. Crossfield, J.P., the exhibits being tastefully staged in a mammoth marquee, nearly 220 feet in length and 80 feet in breadth, every inch of which was utilised. The exhibitors numbered seventy-five, or twenty-five more than any previous record, and in spite of the dry weather the flowers were very numerous and of excellent quality. The Sweet Peas were a revelation, and as they occupied some hundreds of feet of space the effect was charming. Besides the usual liberal money prizes, the society offered for competition an open challenge shield, seven challenge cups, and nine medals. In order to make the exhibition as artistic and attractive as possible, as well as to quicken the interest of growers, a large number of new classes were introduced. In view of the intention of the National Sweet Pea Society to hold its first provincial show next year under the auspices of the North Lonsdale Society, more than usual attention was paid by the committee to the Sweet Pea department, a novelty in which was the charming and extensive display of single blooms of every imaginable colour and variety shown in competition for numerous special prizes given by groups of different

tradesmen and professional gentlemen. The exhibits of Stocks, herbaceous plants, and table decorations by lady amateurs added a further charm to the exhibition. In the last-named section the competition was extremely keen.

Coming to the exhibition itself, there was, as usual, a magnificent display of Roses, although owing to the advanced season some of the classes in the amateur division were light. In the nurserymen's division the premier honours were taken by Messrs. A. Dickson and Sons of Newtownards, but this time they did not literally sweep the decks, a few of the honours being divided with the Scotch representatives, Messrs. Simpson and Son of Dundee, who figured for the first time at this show. Messrs. Dickson, however, were easy winners of the James Hodgson Memorial Shield, given by the society in memory of the late chairman. Their Earl Dufferin was adjudged to be the best Rose in the show and also the best Hybrid Perpetual, Mrs. Myles Kennedy being adjudged to be the best seedling, and likewise the best Tea or Noisette. In the amateur's section Mr. R. L. Garnett of Lancaster repeated his double victory of last year by winning both the gold and the silver challenge cup. The Myles Woodburne Challenge Trophy for the best bloom exhibited by a local amateur was won by Mr. J. Fragle with a lovely specimen of Mildred Grant. The Crystal Palace and Saltaire winners, Mr. F. J. Harrison of Ulverton and Miss Nina Dickinson, Newby Bridge, were again very successful, the former carrying off for the third successive year the Ulverston Urban Council Challenge Cup, and the latter winning the Mrs. Myles Kennedy Challenge Cup, won last year by Mr. Harrison. In the Sweet Peas section Mr. R. Bolton, Carnforth, carried off the J. Towers Settle Open Challenge Trophy, and Mr. T. Proctor of Yealand, after a very close fight with H. W. Mackereth, last year's winner, for the second time won the J. Towers Settle Local Challenge Trophy.

The great success achieved was largely due to the efforts of the hard-working committee, headed by Mr. Myles Kennedy (chairman), the Rev. R. T. Langtree (vice-chairman), Mr. F. J. Harrison (hon. treasurer), and Messrs. G. H. Mackereth and F. W. Poole (hon. secretaries).

ROSES—OPEN TO ALL.

The James Hodgson Memorial Shield, value 30 guineas, and gold medal, for exhibition Roses in vases—twelve distinct varieties (to include not more than six varieties of Tea or Noisettes), seven blooms each: Alex. Dickson and Sons, Newtownards. Seventy-two blooms, distinct: First, A. Dickson; second, J. Simpson and Sons, Dundee. Thirteen blooms, distinct, three trusses of each: First, A. Dickson and Sons; second, J. Simpson and Sons, Dundee. Thirty-six blooms, distinct: A. Dickson and Sons. Twelve blooms, Tea or Noisettes, distinct: First and second, J. Simpson and Sons. Twelve blooms of any light Rose: First, A. Dickson and Sons (Killarney); second, J. Simpson and Sons (Kaiserin Augusta Victoria). Twelve blooms of any dark Rose: First, A. Dickson and Sons (Earl of Dufferin); second, J. Simpson and Sons (Captain Hayward). Twelve blooms of any Tea or Noisette: J. Simpson and Sons. Twelve blooms new Roses, distinct: First, A. Dickson and Sons; second, J. Simpson and Sons. Best seedling: A. Dickson and Sons (Mrs. Myles Kennedy). Best Rose in show (bronze medal): A. Dickson and Sons (Beattie Brown). Best Hybrid Perpetual in show: A. Dickson and Sons (Earl Dufferin). Best Hybrid Tea in show: A. Dickson and Sons (Earl Dufferin). Best Tea or Noisette in show: A. Dickson and Sons (Mrs. Myles Kennedy).

OPEN TO ALL AMATEURS.

Society's challenge cup and medal for twelve distinct Hybrid Teas: First, R. L. Garnett, Lancaster. Eighteen distinct varieties: First, Rev. R. T. Langtree, Grange. Four distinct varieties, three blooms of each: First, R. L. Garnett; second, Rev. R. T. Langtree. Nine distinct varieties, Tea or Noisettes: First, R. L. Garnett. Six blooms of any dark Hybrid Perpetual or Hybrid Tea: First, R. L. Garnett; second, Rev. R. T. Langtree. Six blooms of any light Hybrid Perpetual or Hybrid Tea: First, R. L. Garnett. Six blooms of any one Tea or Noisette: First, R. L. Garnett; second, J. H. Midgley, Grange. Best dark Hybrid Perpetual or Hybrid Tea (bronze medal): First, Mrs. Atkinson, Croftlands, Ulverston (J. K. Williams). Best light Hybrid Perpetual or Hybrid Tea (bronze medal): First, J. Fragle, Ulverston. Best Tea or Noisette (bronze medal): First, R. L. Garnett (Mr. Edward Mawley).

AMATEURS RESIDING WITHIN A RADIUS OF THIRTY MILES OF ULVERSTON.

Society's gold challenge cup and medal for twelve blooms, distinct varieties: First, R. L. Garnett; second, Dr. Tidswell; third, Rev. R. T. Langtree. Garden or decorative Roses, six distinct varieties, not less than three trusses of each. (Prizes presented by Mr. S. Taylor, J.P., C.C.): First, R. L. Garnett; second, Myles Kennedy, Ulverston; third, Mrs. S. Taylor, Birkdale.

The Myles Woodburne challenge trophy and medal, for the best bloom exhibited by a local amateur: First, J. Fragle (Mildred Grant).

SWEET PEAS—OPEN TO ALL.

The J. Towers Settle challenge trophy, value 25 guineas, and £2, for twenty-four varieties, distinct: First, R. Bolton, Warton; second, H. W. Mackereth, Ulverston; third, W. J. Ireland, Slyn. One bunch Bolton's Pink: First, W. S. Heslington, Ripon; second, R. Parker, Ulverston; third, T. Hewitt, Kirkby. One bunch Gladys Unwin: First, W. S. Heslington; second, F. J. Harrison; third, R. Parker. Best bunch of Black Michael in the show: First, Thomas Jones, North Wales. Best Romolo Piazani in show: First, A. Malcolm, Duns, N.E. Mr. Malcolm was successful throughout.

THE GARDEN.

No. 1759.—VOL. LXVIII

AUGUST 5, 1905.

A DRY SEASON.

AT the moment of going to press the sun is shining from a cloudless sky, and there is no indication of a break in the long-continued drought, which is upsetting the gardener's calculations, withering the flowers as they open, and cutting short the supplies of many vegetable crops. The value of a good mulching of strawy manure, grass from the mowing machine, and such like cannot be over-estimated this season; these when timely applied do far more good than dribblets or even drenchings, more especially of cold well or spring water. Where the ground is very poor the crops are failing badly this season, no matter how often water is given, thus showing how necessary it is that they should be given something stronger than water to live upon. Waiting for rain is also a risky proceeding in the case of plants newly put out, but after they are once established watering may cease with advantage unless thorough soakings can be given. Much seed that has been sown has germinated very badly, and many seedlings have come up only to be destroyed by insects before they have formed rough leaves, but gardeners, as a rule, ought to be able to get their ground into a finer free-working state, and, thanks to spade labour, their ground is not nearly so quickly exhausted of moisture as is the case with ploughed land. In addition to this they are in a position to moisten the drills previous to sowing the seed, and when thus treated germination takes place far more quickly and surely than when the seed is sown in dry drills, covered with soil, and then watered. The dry weather ought not to deter anyone from sowing salading, notably Lettuces, regularly, or say every fortnight, thinning out and leaving the plants where they are to grow, thereby avoiding transplanting; but, on the contrary, is a very good reason why this practice should be persevered with. More Carrot seed (giving the preference to Horn varieties) ought also to be sown, the aim being to keep up a good supply of tender young roots throughout the autumn and early winter months, and there should be no further delay in the matter of sowing seed of small, quick-growing Cabbages or Coleworts for planting thickly, as

these are most acceptable in the autumn and winter. There certainly ought to be no waiting for rain in the case of such an important crop as spring Cabbage. Seed of reliable varieties—Ellam's Early Spring and the true Wheeler's Imperial—should be sown at once. It is true the Turnip fly is very troublesome in dry, hot weather, young Cabbage seedlings sometimes suffering badly from its attacks, but an occasional watering with only moderately strong liquid manure will hasten growth and check the ravages of the fly. This is the best remedy we have yet tried, and it answers well in the case of Turnips this season. A showery time is sometimes waited for in the case of sowing for the principal crop of Turnips, but we may easily err in waiting too long, especially when that excellent hardy variety Chirk Castle Black Stone is grown. In the colder districts winter Turnips ought to be sown in close succession to early Potatoes, but in the more favoured southern localities they may well follow second early Potatoes, levelling, breaking down the ground, opening the drills, watering these, and then sowing the seed, no matter how dry and hot the weather may be. When the weather happens to be very hot and dry in July and August, the sowing of winter Spinach is often deferred till it is too late in the season for the plants to attain a serviceable size before severe frosts intervene. The ground ought to be early selected and prepared for this very important crop, plenty of sunshine and air greatly benefiting it, while should a soaking rain fall before the time has arrived for making the first sowing, the opportunity ought to be taken for breaking down lumpy ground with rakes. This keeps in the moisture and admits of seed sowing being done when the proper time arrives without much further trouble. Should the ground be very dry about the second week in August, seed must yet be sown then, using the watering-pot for moistening the drills.

Very many Onions have been spoilt owing to those responsible waiting too long for rain before thinning. This was a mistake, even if rain had fallen when most anxiously expected, as quite small Onions, as well as Carrots, Parsnips, and Turnips, draw readily enough, no matter how hard the ground may be, and early thinning would have made it better in every way for those that were

reserved. Runner and Kidney Beans came up very regularly and strongly, and ought to have been freely thinned.

THE EDITOR'S TABLE.

CARNATION QUEEN ALEXANDRA.

Mr. G. Revens sends flowers of a very pure white Carnation which he has named Queen Alexandra. It is evidently a first-rate variety for the border, as it is pure white, fragrant, and the calyx does not burst. With the flowers came the following note: "This variety occurred among a batch of seedlings which I raised five years ago. I have had upwards of forty blooms on a two year old plant. They began to open on June 14." Our correspondent should send flowers to a meeting of the Royal Horticultural Society.

AN INTERESTING SERIES OF BEGONIAS.

Mr. P. S. Hayward, Brookside Cottage, Cornford Lane, Pembury, Kent, sends a very interesting series of Begonias, the result of crosses with B. worthiana. The flowers were gathered from plants "about six months old, that is, from the time of sowing the seed, and the plants are in large 6-inch size pots. They surpass in vigour the ordinary Begonias." *Worthiana magnifica* is a beautiful colour, a clear cerise; *hybrida rosea* is a very fine and pretty rose shade; and *hybrida rubra* a warm rich crimson, but produced in long and graceful trails. The flowers are said to have an unpleasant scent, but we have not detected this.

ESCALLONIA PULVERENTA.

Mr. S. W. Fitzherbert, Kingswear, South Devon, sends flowers of this pretty and uncommon Escallonia, a Chilean shrub, and rather tender, but it is flowering now in the open at Kingswear. It is very distinct, and has slender cylindrical spikes of small creamy white, which are conspicuous against the shining green leaves. It is a most interesting Escallonia.

NEW CARNATIONS AND PICOTEEES FROM MR. DOUGLAS.

A welcome boxful of new Carnations and Picotees comes from Mr. James Douglas, Edenside Gardens, Great Bookham, and we have never seen finer flowers. Their names will soon be familiar to the Carnation grower.

Cæsar.—A beautiful fancy variety, the petals broad, firm, and make up a bloom of superb substance. The colouring is maroon on a white ground.

Grey Friar.—We are not sure that the peculiar lavender colour of this flower will appeal to everyone, but of its distinctness there can be no two opinions. It has the same substance as the former, and this strength in the petal is characteristic of all the varieties sent to us.

Louisa.—This is a yellow ground Picotee, and we quite agree with Mr. Douglas in his estimation of it, that it is "one of the best" of its group. Its brilliancy of colouring is remarkable. The flowers are exceptionally fine in form, smooth,

and margined with an almost piercing rose shade. We have seen nothing brighter than this.

■ *Saucedon*.—Another handsome yellow ground Picotee with a deep edge of red.

Afterglow.—A pretty name for a pretty flower. It is a self, and a fine type of the border Carnation. The flowers are large, without coarseness, and the rosy red colour is of quite an unusual shade. There is no suggestion of a split calyx, and the petals are very broad and firm. A good garden Carnation in every way.

Lara.—A sport from the variety Professor Cooper, and the most dazzling in colour that has come under our notice. The markings are extraordinarily bright, a shade of rose on a pale buff ground.

The Old Guard.—This is the most conspicuous of all for breadth of petal and substance. It is a splendid self of a bright scarlet colour, and has gained the award of merit of the Royal Horticultural Society. A fine garden Carnation.

PERIPLOCA GRÆCA (SILK VINE).

We are pleased to see flowering sprays of this pretty climber from Messrs. William Cutbush and Sons, the Barnet Nurseries, Barnet. There is a quiet beauty in the brownish coloured flowers.

COLOURED PLATE.

PLATE 1279.

DIANTHUS WARLEY.

OF the garden Pinks raised within the past few years, none is more brilliant than the seedling from *Cyclops*, raised by Miss Willmott, and called Warley. The coloured illustration of it, from a drawing by H. G. Moon, shows its beautiful colouring and shape—an almost perfect Pink—and so intense is the crimson shade that a little colony of it may be seen from a distance. Fortunately, the growth is strong, and the flowers are produced with great freedom. Miss Willmott has given to the world of flowers many gems, but few more beautiful than this delightful rock plant.

PRIZES OPEN TO ALL. AUGUST.

ESSAY ON BULB PLANTING.

A First Prize of FOUR GUINEAS,

A Second Prize of TWO GUINEAS,

A Third Prize of ONE GUINEA,

And a Fourth Prize of HALF-A-GUINEA

are offered for the best Essay upon, "*Beautiful Ways of Planting Hardy Spring-flowering Bulbs*."

The essay must not exceed 1,000 words, and should mention the best kinds for massing in the flower garden, the border, in the wild garden, &c., in spring, and the most beautiful ways of using them. The essays must reach the offices of THE GARDEN, 20, Tavistock Street, Covent Garden, on or before the 31st inst. Envelopes must be marked "Competition." The essays must be written on one side of the paper only. Competitors not conforming to these rules will be disqualified. The Editor cannot undertake to return the MSS. of unsuccessful contributors.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

August 7.—Lichfield, Wells, Mansfield, Grantham, Ilkeston and Prescott and District Flower Shows.

August 9.—Tavistock and Ventnor Horticultural Shows.

August 15.—Royal Horticultural Society's Meeting; Clay Cross Horticultural Show.

August 16.—Bishop's Stortford, Calne, and Harpenden Flower Shows.

August 17.—Dyffryn District and Taunton Deane Horticultural Shows.

August 21.—Warkworth Horticultural Show.

British Gardeners' Association.

The newly-elected executive council held its first meeting at the Hotel Windsor on Friday, the 21st ult. A full report of the proceedings is given on another page.

National Potato Society.—On the invitation of Professor Middleton, director of the Cambridge University Agricultural Experiments, the National Potato Society will inspect the Potato trials at Impington, near Cambridge (Histon Station), on Friday, the 4th inst. Members who would like to be present and would travel from London are requested to communicate with the secretary, Mr. Walter P. Wright, Postling, Hythe, in order that a special fare may be applied for.

The history of Narcissus Lulworth.—I have always had my doubts as to the alleged chance origin of that beautiful Daffodil Lulworth. In one list I see it stated that it is a chance seedling found near the village of that name. Another authority states that it was discovered by the Rev. G. H. Engleheart in an orchard at Lulworth. That this latter is an inaccuracy I have proof from that gentleman's own lips. I have gone to considerable trouble to ascertain the facts, and I now have it from Mr. P. J. Kendall (the original distributor, and, I think, the raiser of N. King Alfred) that N. Lulworth was raised by his uncle, the late Rev. Walter Kendall, who was vicar of East Lulworth. Mr. Kendall can, unfortunately, give no particulars as to its parentage, but believes it to be a hybrid, as no doubt it is. It is interesting to speculate as to its probable parentage. For myself I should fancy it to have been a seedling from one of the older white trumpets crossed with poeticus, but probably few, if any, who attempted the same cross would get from it anything so good. A case in point is that very showy Daffodil Will Scarlett, raised by Mr. Engleheart from a collected wild form of Muticus crossed with Poetarum. Another hybridist told me he had several times made the same cross, and the result had been "utter rubbish." Perhaps the hybridising of Daffodils is made all the more fascinating from the fact that the blanks are so many, the prizes so few.—F. HERBERT CHAPMAN, Rye.

The Gloucester Rose Show.—May I point out an error in your report of the National Rose Society's show at Gloucester. You say, "In the class for six blooms, distinct, Mr. Holbrook was first and Mr. Gill second; these were the only entries." This is incorrect, and, I think, must have been written of one of the local cottagers' classes, as in the class for six, distinct, Mr. W. Upton of Belgrave, Leicester, was first, and I was third out of nine exhibits. I think Mr. Holbrook was second, but am not quite sure as to this.—JOHN BATEMAN, *Rosetate, Archway Road, N.*

Visit to Monifieth Nurseries.—Recently a number of the friends and customers of Messrs. W. P. Laird and Sinclair, Limited, from the Arbroath district, visited the firm's extensive nurseries and trial grounds at Monifieth. Agriculture, arboriculture, horticulture, and

floriculture engage the close attention of this firm. The party were received at Fountainbrae House by Mr. J. W. Laird, who acted as guide, taking them round and pointing out all the principal items of interest. The nurseries are beautifully situated, and command at many points a magnificent view of the estuary of the Tay and right up beyond Newport and Dundee. From a business point of view the "exposure" is all that could be desired. Lying close to the German Ocean, the trees that are here grown cannot fail to be hardy, and consequently are well adapted to successful transportation to all parts of the country. The nurseries extend to about forty acres, and give evidence of careful cultivation. The Arbroath party were much interested in all they saw and had explained to them by Messrs. Laird in their tour of inspection. After partaking of tea at Taybank, the residence of Mr. W. P. Laird, the company dispersed.

Horticultural College, Swanley.

At the examination held last April, by the Royal Horticultural Society, twenty-six students from the above college competed and secured the following places among 160 competitors: Eight first class, fifteen second class, and three third class; G. E. Villiers-Stuart, who was third in the first-class list, gained 275 marks. A Nature study course, for helping those who are desirous of extending their knowledge of Nature study, will be held at the college from July 31 to August 12. Most of the instruction will be given (weather permitting) out of doors, rambles in the country under the guidance of experienced teachers being the chief feature. Miss Miyakawa (of the Higher Normal College, Tokyo) will give an address on the "Education of Women in Japan" on Saturday, the 5th inst., at 8 p.m. The college is 17½ miles from London, and the return railway fare is 3s. from Victoria, Holborn, or St. Paul's stations (South Eastern and Chatham Railway). Applications for forms of entrance and further details to be made to the principal.

Mr. Bernard Cowan has just completed his twenty-fifth year as superintendent of the Westoe and Harton Cemeteries, South Shields. Prior to taking up this appointment he was head gardener at Axwell Park, and from among one hundred applicants he was selected for his present position. One of the first things that he turned his attention to was the remodelling of Westoe Cemetery, and its present verdure shows how judiciously he went about the work in selecting trees and shrubs suitable to the soil and climate of the district. When it became necessary to take in more ground the Harton Cemetery was formed, and the duties of laying it out devolved upon Mr. Cowan. His ideas from the first were to allow the eye to rest upon flowers, trees, and shrubs, and not upon tombstones, and in this he has been eminently successful, so much so that in walking along the spacious paths one is reminded of a public park instead of a cemetery, as there are only occasional glimpses of tombstones. During his tenure of office over 40,000 interments have taken place. Mr. Cowan is one of the most popular of Northern horticulturists. He took an active part in the formation of the South Shields Chrysanthemum Society, and has discharged the duties of honorary secretary since 1882. For some time he held an appointment as horticultural lecturer under the Durham County Council, and he is an occasional contributor to the Press. He is senior vice-president of the Royal English Arboricultural Society, and frequently contributes papers at the society's meetings.—B.

The legend of the Moss Rose.

With reference to the poem on this subject published on page 23 of THE GARDEN for the 15th ult., a correspondent from Winchester, who gives neither name nor address, writes: "The following legend of the Moss Rose is, I think, prettier than the one which appeared in THE GARDEN of July 15." The poem sent is the same as the one published on page 72 sent to us by another reader.



DIANTHUS WARLEY.



Annual flowers round trees.—I find sowing a few annual flower-seeds round the trees brightens up the garden. I have an old Apple tree in the centre where the paths meet, and have sown a deep fringe of *Clarkia Salmon Queen* three parts round it, and the effect is very striking.—J. REIDPATH.

The Rangoon Creeper (*Quisqualis indica*).—Introduced from India in 1815 this is by no means a novelty, but nowadays it is in this country at least a decidedly rare plant, and the receipt from a correspondent of a fine cluster of flowers merits at least a passing notice. The plant in question belongs to the order *Combretaceae*, one member of which, *Combretum purpureum*, remarkable for its showy flowers, is now almost as rare as the *Quisqualis*. This last, which is of a rambling habit of growth, has the long flexible branches clothed with oppositely-arranged ovate leaves, more or less pubescent. The flowers, which individually are not unlike a particularly long-tubed *Bouvardia*, but with five petals, are borne in clusters towards the points of the shoots. They deepen in colour after expansion, and are, when fully developed, of a bright red tint. It is certainly a bright and pleasing stove plant, that merits more attention than is at the present time bestowed upon it. In India it is, in common with the *Bougainvilleas*, a favourite subject for training up bungalows and similar purposes. The cultural requirements are not exacting, but it flowers all the more freely if given a partial rest during the winter.—T.

***Ixoras* in flower.**—It would almost seem that we are to have a revival of these one-time popular plants, for quite a bright little bank of them was to be seen at the recent Chelsea Show. True, they were not in the shape of large bushes at one time so popular, but as neat little plants in 5-inch pots, each of which was carrying several clusters of blossoms, and as a number of each kind were grouped together they formed a bright, pleasing, and uncommon feature. Those particularly noticeable were *acuminata*, white; *amabile*, orange pink; *aurantiaca*, orange red; *dixiana*, orange; *Fraseri*, reddish salmon; *Prince of Orange*, very bright orange; and *Williamsi*, salmon red. Beautiful though the above are, a few more distinct forms would have added a pleasing variety to the group, such, for instance, as *Ixora coccinea lutea* with its soft yellow flowers; *I. Westi* whose blossoms are of a pretty rose pink shade; and *R. macrothyrsa* or *Duffi*, whose flowers borne in huge heads are of a rich reddish crimson colour. This last, however, which is a much taller grower than the others, does not, as a rule, flower till the month of September. Any attempt to keep this dwarf ends in failure, and it is seen to the best advantage when carrying three or four shoots each 3 feet or 4 feet high, and terminated by a large head of richly-coloured blossoms. All these *Ixoras* are somewhat liable to be attacked by mealy bug, which can, however, be readily destroyed by a touch of methylated spirit.—T.

***Epilobium obcordatum*.**—There is an unusually good plant of this very beautiful dwarf *Epilobium*, which you justly call "rare" in your report of the last Royal Horticultural Society's meeting, in the garden of Mr. James Lotimer, Nithbank House, Dumfries. It has been established for some time, and, like most of the plants in the collection of Mr. Lotimer, is in the best of health and flowering freely. It is cultivated on a low rockery facing almost south-west, and quite fully exposed to the sun. A plant such as this, only some 3 inches high, and bearing a good number of its lovely rosy crimson flowers, is one of the most pleasing of our summer-flowering alpine. It is figured fairly well, so far as the size of the specimen would permit, in Wooster's "Alpine Plants," but, unfortunately, the colouring is not good, and gives a most imperfect idea of the exact hue of the flowers. This *Epilobium* is a native of the Rocky Mountains and the Californian Sierras,

and is hence popularly called the Rocky Mountain Willow Herb. It prefers a sandy soil, and its chief enemy in this country seems winter wet overhead. Although the plant is so dwarf, the flowers are large, and a good specimen, such as that at Nithbank House, is quite a pleasure to see. The habit of the plant is rather trailing, so that it is eminently suitable for the rockery.—S. ARNOTT.

***Incarvillea Delavayi*.**—I have read with interest the note on *Incarvillea Delavayi*, and venture to send you a photograph of a bed of it here. The plants had been in bloom for over a fortnight, and a large number of spikes had been cut when this picture was taken, otherwise the effect would have been much finer. They were raised from seed sown in a cool greenhouse in May, 1901, and have never had any protection even in the severest weather. Self-sown seedlings are now coming up freely all over the bed, and my only fear is that in future years we may find that this lovely flower grows too easily.—H. M. BROWN *Longformacus, Duns, Berwickshire*.

***Lilium philippinense*.**—Although introduced more than thirty years ago by Messrs. Veitch of Chelsea, this *Lilium* is not often met with in cultivation. This is probably due to its resemblance to *longiflorum*, the bulbs of which can be bought so cheaply and in such quantities. For another thing, it cannot be grown easily. Mr. J. Wallis first found it at an elevation of 7,000 feet in the Island of Luzon in July, 1871. The bulb is not unlike a small *longiflorum*, but is



INCARVILLEA DELAVAYI.

rather more pointed at the top. The stem grows to a height of 1 foot to 2 feet, the grass-like leaves are narrow, and 5 inches to 8 inches long. The flowers are usually solitary, and occasionally two on one stem, pure white, the narrow tube 8 inches or 9 inches in length, which for such a slender stem is exceptional. It is sweetly scented, and is at present flowering in No. 4 greenhouse, Kew. It has been grown in a rather moist, warm greenhouse. Owing to the vitality of the scales, from a few bulbs it is not difficult soon to work up a stock. A few of the outer ones can be removed, or several of the bulbs pulled to pieces, and the scales placed on moist sand. Small bulblets are soon produced when they can be dibbled in pans or potted off singly in small pots. Only small leaves like little blades of grass are produced the first year.—A. O.

***Spigelia marilandica*.**—Really good and handsome plants that can outvie *Gillenia trifoliata* as a waterside plant, and give us such a display of blossom in July as this *Spigelia* does, are too valuable to be neglected in these days, and I think if *Spigelia* were more generally known many would welcome it for its wonderfully bright and quaint heads of blossom. Its popular name is ill-chosen. Worm Grass is too bad a name to give a plant because it has pink roots. It makes a woody-stemmed tuft that may be likened to *Eurotia fruticosa* as regards leafage and basal habit, while the flowers are borne in loose heads suggestive of *Monarda*. These have long and narrow crimson tubes that project from the

leafage, curious horn-like petal lobes and yellow throats suggestive of *Chelone*, but much more attenuated, and they appear as quaint as they are showy. I find it thrives well in a good vegetable loam, planted so that its roots can find water 1 foot below the surface, and that it prefers shade from strong sunshine, or the colours will bleach badly. Dense shade it cannot tolerate, nor the drip of trees. A clump or two of *Iris aurea* planted on the sunny side will shelter it sufficiently and provide an effective foil to the crimson tubular blossoms. It transplants badly, hence pot-grown plants should be secured wherewith to start a colony. In wet but not cold districts it is likely to thrive anywhere in a spongy peat soil without a permanent water supply.—G. B. M.

***Jasione Jankæ*.**—I have been much impressed with the value of this beautiful blue-flowered *Sheep's Bit* *Scabious* from Easternmost Europe for border planting, and particularly for "blue" borders. It is the best plant of its kind I have met. It makes a *Campanula*-like tuft of linear, glossy, crimped leafage, from which a pyramidal sheaf of stems arise in the second year, each stem branched again and again until the whole plant looks like a giant *Equisetum* studded all over with a myriad of small green buttons. Later the green buttons begin to show colour, and the tiny Bell-flowers open in rings till the flower-heads bristle like *Echinops* with the tiny tubes, so closely packed that the popular name of *Scabious* arose. The pyramids vary from 2 feet to 3 feet in height, and are much finer than those of any other *Jasione* I know, every branch bearing a quantity of flowers studded along its length. In the first year of growth it looks like a weed, in the spring following still more like a weed, but in July and August following it ranks among the best plants of the garden; the majority of the flowers exceed 1 inch in diameter. It will grow well in any soil not too dry in summer, and is useful for any large rockery.—G. B. M.

Malmaison Carnations out of doors.—IN THE GARDEN for July 15 I read the two articles on the Carnation by "A. H." and "E. H. W." They both say that the Malmaison Carnation does not grow well outside in this country, but I should like to say through your paper that there is a certain gentleman's residence in Southport where *Souv. de la Malmaison* Carnation does very well in the open all the year round. The ground is very sandy, and suits it well, as the blooms show. There are twenty or more plants, the parent one having been in the open for over five years.—CHARLES BELL, Wigan.

Gardening at Earl's Court Exhibition.—It is a welcome sign of the times that at most of our outdoor popular places of resort horticulture now plays no mean part in the attractions afforded. The western gardens of the Naval and Fisheries Exhibition at Earl's Court this season well exemplify this striking fact. Among a good selection of shrubs, the writer recently noted some attractive flower arrangements; the lawns, too, which are well and neatly kept, are refreshing to the eye on hot summer days. Messrs. William Whiteley, Limited, Westbourne Grove, are responsible for the excellent furnishing of this very attractive spot.—QUO.

***Adenophora Potanini*.**—There are several *Adenophoras* or Gland Bell-flowers that are well worth growing, and two or three of them are as showy as the best Alpine *Campanula* when well established. A. *Potanini*, from Asiatic Turkey, is exceptionally neat and showy, forming a close tuft of rounded leaves, and producing arching spikes of pale blue Bell-flowers that are remarkable for their refined and pretty shape. Each flower measures about 1 inch in length and span, and as both flowers and spikes are yielded in quantity a pretty tuft 1 foot or 2 feet high is the result. The plant has the wiry stems of the common *Harebell*, and the flowers hang at

intervals of 1 inch or 2 inches along the upper portion. I like it better than any Harebell, except *rotundifolia* and *pusilla*, for draping the ledge of a boulder. Drought does not appear to harm the plant, for its roots are stout and of considerable length and penetrating power. It is very hardy, a long-lived perennial, and in the south-west it may become shrubby at the base, judging by its habit when pot-grown under glass. —G. B. M.

Linaria pallida.—The Kenilworth Ivy (*Linaria Cymbalaria*) is so close to the Italian *Linaria pallida* that many would regard the one as being but a form of the other. There is, however, a great difference in the colour of the flowers, and more important to note, in cultural requirements also, the Kenilworth Ivy prefers an old wall more or less dry. The Italian Toad Flax prefers a damp site, and one cannot do better than grow it where *Arenaria balearica* thrives. It makes rapid growth, and has leaves and flowers twice the size of the native species, while the latter are coloured palest rosy lavender, with the usual yellow throat. It is a pretty plant that one could use effectively to cover stone boulders employed in water gardening, as one would employ the Moneywort, and once it has established itself and shed seeds there will be no trouble about keeping up a supply. —G. B. M.

Mitraria coccinea.—This, one of the very few shrubby Gesnerads in cultivation, is just now flowering freely, and very attractive it is when in this stage. It forms a loose-growing specimen of a semi-scandent character, whose slender shoots are clothed with small, ovate, deep green leaves, which are retained throughout the year. The flowers, 1 inch or more in length, are of an inflated tubular shape and bright scarlet in colour. Like most Chilean plants, it succeeds best with a liberal amount of atmospheric moisture, and in the south-west of England and in Ireland it finds a congenial home, but in most other parts the protection of a greenhouse is necessary to its well doing. By the support of a few sticks it may be grown in bush form, or trained up a pillar or support in the greenhouse it is seen to great advantage. A moist, peaty soil suits it best. This *Mitraria* is a native of Chiloe, a small island off the mainland of Chili. It was introduced in 1848, but was, I believe, discovered previous to that date by Mr. Charles Darwin during the voyage of the Beagle. It is not at all difficult to propagate, as cuttings of the young-growing shoots strike root almost as readily as those of a *Fuchsia*. —T.

Helensburgh Rose Show.—The thirty-first annual Rose Show of the West of Scotland Rosarian Society was held in the Victoria Hall, Helensburgh, on July 13. The entries in all classes showed an increase, the total constituting a record number for the society. The Rose blooms were very fine, and the class for six glasses or vases of decorative Roses and six glasses or vases of Sweet Peas was well contested. The show was opened by Lady Colquhoun of Lusk in the presence of a large and fashionable company. Great interest was taken in the class for sixty Rose blooms, distinct varieties, and the honour of winning this fell to Messrs. Alex. Dickson and Sons, Newtownards, who set up a very fine stand containing a large number of new Roses; Messrs. Dicksons and Co., Edinburgh, made a good second. For twenty-four Teas or Noisettes, twelve varieties, Messrs. J. Simpson and Sons, Dundee, were first. For twelve blooms of Hybrid Perpetuals, any variety, Messrs. Alex. Dickson and Sons were first; and Messrs. Dicksons and Co. were first for twelve blooms of Hybrid Teas. In the classes confined to Scottish growers, the honours for forty-eight blooms of Roses, distinct varieties, went to Messrs. David Robertson and Co., Helensburgh; those for thirty-six blooms, twenty-four varieties, to Mr. George Walker, Laggary Gardens. Mr. P. Mackenzie, Ardenvohr Gardens, was first for twenty-four blooms; Mr. William Parlane,

Rosslea, being first for sixteen blooms of Teas or Noisettes, twelve blooms of Hybrid Teas, twenty-four blooms of dark Roses, and twenty-four blooms of light Roses. Mr. Parlane had the best Tea or Noisette bloom (The Bride). The best Hybrid Rose bloom was Her Majesty, from Messrs. Alex. Dickson and Sons. Sweet Peas were well shown, Mr. A. Hoggan, Strathgryre, Busby, being first for twelve sprays; Mr. W. A. Arrol, Torwoodhill, Row, was first for six specimens of ornamental foliage plants. In the classes confined to Dumbartonshire amateurs, Mr. P. M'Farquhar, Ardencaple Mill, was the most successful.

Canonbie Rose Show.—The annual Rose show at Canonbie, N.B., was held on the 22nd ult., when there was a capital display of flowers, although the numbers might have been larger in the competitive classes. The quality was excellent, and a few good growers carried off almost all the prizes. In the class for twelve Hybrid Perpetual Roses, Mr. T. Pride, Canonbie Schoolhouse, took the first prize, the same award falling to Mr. Pride in the class for twelve of any kind. In the class for six of any kind, Mr. T. Elliot, Marsh Cottage, and the Rev. R. H. Kerr, The Manse, took the first and second prizes respectively. The best Rose bloom in the show came from Mr. R. M. Elliot, Knittyholm. A fine display of Roses, not for competition, was made by Mr. Graham, Holmwood, Langholm, and by Messrs. Palmer and Son, Limited, Annan.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

ROCK EDGINGS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Your correspondent Mr. Arnott, in the issue of the 8th ult., speaks of rock edgings as being so satisfactory. Does this remark apply to large gardens only, or would the average size flower garden be equally suitable? And then what width of actual rockery is intended, and the height? I am going to a house with a level garden through which a straight path runs—there is no edging, the garden has been used for vegetables only—and if I make a rock edging to the path (2 feet 6 inches) it would be necessary to widen the path I suppose. Perhaps it would be better to lower the level as well. Mr. Arnott says that certain plants should be allowed to trail on to the path, which makes me think he is referring to a very large garden and a broad path, where there would be no untidiness apparent as in a small place.

A. W. MASON.

[Rock edgings are suitable for both large and small gardens, and with careful selection of, and attention to, the plants even a comparatively narrow pathway can be edged with these. A path 2 feet 6 inches is very narrow for a main one, and it would certainly be desirable to widen it a little if you can do so. You could, however, keep it at that width and have a rock edging as well. It is not desirable to have the pathway too deep, as otherwise in wet weather it would become a receptacle for standing water. An edging from 2 inches to 6 inches high is quite enough. There is no need to form elaborate rockwork, and a single row of stones firmly embedded in the soil and only raised to the level of the borders will be quite sufficient. I have made edgings with a double row of stones and a space between, but found no advantages result. The trailing of certain plants can be kept greatly within bounds by clipping back after flowering, but a little freedom in this respect when space is available takes away from the stiffness of a straight path. Even such subjects as *Aubrietias* and *Arabises* stand cutting hard back every year

if done immediately after their main bloom is over, and are greatly benefited by it. In my former garden I had a short pathway edged with rock plants for upwards of twenty years, and these required very little attention. As opportunity offered I added to my rockwork edgings, and in my new garden I have made many more additions. I shall be glad to give you correspondent any further information, but I should suggest his planting his edgings from 6 inches to 9 inches away from the stones at first, that is, if the stones are not broad ones. A stone the thickness of a brick set on edge is quite thick enough. —S. ARNOTT.]

FORTUNE'S YELLOW ROSE.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I should like to give my experience of Fortune's Yellow Rose for the benefit of its admirers. About twenty-five years ago I raised some cuttings from a plant of it, which grew up to the top of a house in Norfolk, facing east, the soil clay. This Rose was believed to have been there for forty years. My cuttings have been planted against the east wall of our house, in Suffolk, not on clay, and each May and June for rather more than a month they are covered with Roses of many shades, all lovely, and very sweet scented. Some this year were a fawn shade of yellow, others were the bright coppery pink shaded into yellow, which belong to this Rose at its best. All who see it admire it. Another plant on a west wall is not so brilliant in colour.

Dalchel House, Whitton, Ipswich. F. E. S.

LEGEND OF THE MOSS ROSE.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Seeing in your issue of the 15th ult. a poem on the "Legend of the Moss Rose," I send you the legend from the German, which I think is much prettier in idea.

The angel of the flowers one day
Beneath a Rose bush sleeping lay,
That spirit to whose charge is given
To bathe young buds in dew from heaven.
Awaking from his light repose
The angel whispered to the Rose:
"O fondest object of my care,
Still fairest found where all are fair,
For the sweet shade thou'st given me,
Ask what thou wilt—'tis granted thee."
"Then," said the Rose with deepening glow,
"On me another grace bestow."
The spirit paused in silent thought—
What grace was there that flower had not?
'Twas but a moment—o'er the Rose
A veil of moss the angel throws;
And robed in nature's simple weed,
Could there a flower that Rose exceed?

L. S. A.

SPARROWS IN GARDENS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—The common sparrow has such a bad reputation and is really so full of mischief that it is a pleasure to record the existence of at least one desirable trait, and that is as a destroyer of aphides or green fly. Dwelling as I do within the London area the Roses were badly attacked by these insect pests, when quite an army of sparrows made their appearance, and going over every bush in a thoroughly systematic manner day after day they in about a week cleared them altogether of aphides, and that without breaking a single twig. Their good offices in the matter of these Roses will need to be remembered when spring comes round, and the *Crocus* and *Polyanthus* flowers are scattered on the ground, for the sparrows seem to take a delight in mutilating these out of sheer mischief. However, having profited by the good offices of the sparrow, I am pleased to say a word in its favour, for as a rule nothing but abuse is levelled at this cheeky bird. H. P.

TREES AND SHRUBS.

KERRIA JAPONICA.

WHEN writing before on this plant I should have said that Loudon made no mention of the double form in his "Hortus Britannicus." As my edition of this work was issued in 1850 it is evident that neither Loudon, W. H. Baxter, nor David Wooster—who assisted him in compiling what is certainly one of the most remarkable works in the English language—were acquainted with the double form at that time. I find, however, that it is mentioned in the supplement, which I omitted to consult. Therein the date of introduction is given as 1804, the single-flowered, or typical form, being introduced in 1835. I do not possess the "Trees and Shrubs of Great Britain," and do not know in what year it was published; but it seems strange that neither Loudon nor his assistants should have been aware in 1850 that the double form was brought into this country in 1700, that is, nearly a century and a half before my edition of the "Hortus Britannicus" was issued, and more than a century earlier than the date of introduction given in the supplement. Both dates cannot be correct, therefore Loudon must have made a mistake.

As "T." truly says, Loudon was a wonderful man, and it is almost inconceivable that he, even with assistance, should have compiled such a work as the "Hortus Britannicus" without making a number of errors. As a fact, it is most difficult to find one; and what a mine of information it contains—the life-history of the plant can be seen at a glance. In those days it must have cost a lot of money for postage alone, for Loudon was evidently in correspondence with all the principal botanists and plant growers at home and abroad. I have often wondered that no one should have continued the work that Loudon began. The "Hortus Britannicus" up to date would be the most valuable work of reference that the horticultural world has ever seen. Surely someone is worthy to wear Loudon's mantle, and there must be plenty of good men who would give the necessary assistance. Such a work issued in parts would, I am convinced, meet with a ready sale. Cannot the Kew people do something in this way?

J. CORNHILL.

PHILADELPHUS MICROPHYLLUS.

THIS charming little species has gracefully-arranged flowers on the thin, wiry branches. To those who know the Philadelphuses by the common Mock Orange (*P. coronarius*) only, this will come as a great contrast, for whereas *P. coronarius* forms an immense bush 15 feet or more high and as much through, with large leaves and flowers, *P. microphyllus* at its best is rarely more than 2 feet in height, the leaves being barely half an inch long, and the flowers not more than three-quarters of an inch across. It is found in Colorado and other places, and forms a mass of brown twiggy branches, clothed with tiny greyish leaves. The flowers are usually borne singly, but sometimes two together from the points of short side shoots. They are white, and are deliciously scented. In the hands of the hybridist it has proved a useful subject, for by crossing it with *P. coronarius* several lovely hybrids have been obtained, among which *P. Lemoinei* and its variety erectus form two of our most useful flowering shrubs. As in the case of other members of the genus, it is of easy cultivation, thriving well in good loamy soil, and lending itself for easy propagation by means of cuttings of soft wood in summer.

W. DALLIMORE.

STYRAX JAPONICUM.

THIS is a native of China and Japan, and is a handsome deciduous shrub that is not planted so largely as it deserves to be. It is practically the

only member of the genus that can be grown almost anywhere, the other species of *Styrax* being rather difficult to deal with, though hardy enough on the whole. The species under notice is an upright branching shrub, with hard, slender growths, attaining a height of 10 feet or so with age. The alternate leaves are from 2 inches to 3 inches in length, ovate or ovate-acuminate in shape, and turn upwards at the edges, which are also broadly serrated. They are glabrous and shining on both surfaces, dark green above but paler beneath. The flowers appear from the middle to the end of June, and are borne from one to four in number on the ends of the short lateral growths. They are about half an inch across, pure white, with golden anthers, and are borne on long pendulous stems. When in full bloom the plant is very distinct and striking, being completely different to any other hardy shrub. The fruit appears in the form of a round, fleshy berry about the size of a large Pea, but it rarely ripens thoroughly in this country. The plant can be propagated by cuttings of half-ripened wood, or by layering, the latter method being the better.

J. C.

NOTES ON HARDY PLANTS.

THE WHITE FRAXINELLA (*DICTAMNUS FRAXINELLA ALBA*).

I HAVE great pleasure in sending you a photograph of a fine plant of the white *Dictamnus*, which I planted when very small eight years ago. The first year it had three spikes of flowers, now it has thirty-four. It is quite hardy, but every winter it has a small heap of coal ashes over the crown. The flowers and seeds of this *Dictamnus* have a very sweet smell like the Verbena. A seedling, self-sown, has made its appearance near the parent plant.

E. WATT.

ONOSMA ALBO-ROSEUM.

WHILE this rare and choice plant is, as Mr. Arnott justly says on page 355, somewhat difficult to grow successfully, there is no doubt that much disappointment is brought about by undue coddling. Here, at Ness, there are at least a dozen healthy clumps about 2 feet in diameter. No special preparation is made. The

THE WHITE FRAXINELLA (*DICTAMNUS FRAXINELLA ALBA*).

plants are simply planted in sandy soil on beds raised some 8 inches or 9 inches above ground level, and while the growth is free and healthy the flowers are produced in great abundance, and never fail to set a fair quantity of seed. *O. echioides* (*tauricum*) is also often "worried to death" by over zealous enthusiasts in their anxiety to provide conditions under which it will survive our damp winters. But one of the finest masses I ever saw was growing on an ordinary herbaceous border in stiff, clayey loam. The mass was 3 feet across, and although the bright yellow flowers were not produced with any remarkable freedom, yet the plant made vigorous growth yearly until an attempt was made to transplant it, which proved fatal to about three-quarters of the growths.

CIMICIFUGA RACEMOSA.

THERE has been this season an unusually fine specimen of this North American plant in bloom in the garden of Mr. James Davidson, Summerville, Dumfries. It is quite 8 feet in diameter, and has had a large number of its handsome spikes of flowers, reaching to a height of more than 7 feet. Even in a large collection of hardy flowers, such as that at Summerville, it was the noblest plant in the garden. It is well known that there is some confusion in the nomenclature of this *Cimicifuga* in gardens. It is frequently called *C. serpentaria*, and those who wish to

obtain the same plant from nurseries have frequently some difficulty in securing the one they desire. *C. racemosa* is the most striking of all the *Cimicifugas*, with its twisted and drooping spikes of rather creamy white flowers, this twisting and drooping of the branched spikes distinguishing it from the others of the genus in cultivation. It is a plant which is quite easy to cultivate in any ordinary border, but its exceptional beauty this season seems to point to its having a preference for a dry position, the rainfall in this district having been abnormally small for months. Although a native of woods, it does not seem to object to full sun in this country. The popular names of *C. racemosa* in the United States are Black Snakeroot and Black Cohosh.

S. ARNOTT.

Sunnymead, Dumfries, Scotland.

THE ROSE NURSERIES OF BRITAIN.

II.—MESSRS. COOLING AND SON, BATH.

ROSSES grow wonderfully well in the neighbourhood of Bath; indeed, this part of the country is so well suited to gardening that it seems almost impossible not to be successful with them. At least such is the impression that is likely to be conveyed to one after seeing the glorious masses of Roses in the nurseries of Messrs. Cooling and Son. The long walk in the lower nursery, bordered by large bushes and pillars of climbing Roses, and here and there spanned by a rustic arch wreathed with the snow-white flower bunches of *Mme. d'Arblay*, or some other equally free-flowering variety, is a lovely sight in Rose time—a picture that neither words nor black and white illustrations can do justice to. Perhaps the finest of the many climbing and rambling Roses to be seen here is *Helène*. It has clambered over pillars and poles, over arches, and has developed into large untrained specimens, and in each case gives prodigally of its pink semi-double yellow-eyed flowers, charming individually, and most effective in the mass. Few of the free-growing Roses can excel *Helène* for delicate and attractive colouring and grace. *Mme. d'Arblay* almost rivals the old multiflora in its rampant vigour, and the two serve well to show what extraordinary growth some of these rambling Roses will make, and the fine specimens they will develop into if left undisturbed in suitable soil amid congenial surroundings. *Crimson Rambler*, of course, is here in quantity. Is there any garden, let alone nursery, where it is not to be found? No other Rose provides such a harmony of rich colouring in foliage and flower, the bright green of the leaves makes an admirable setting for the brilliant crimson blossoms.

Queen Alexandra is a very pleasing climbing Rose, and in the neighbourhood of Bath seems to grow particularly well. We saw some splendid plants of it in Messrs. Cooling's nursery, as well as in other gardens in the district. It has not the brilliant colouring of *Crimson Rambler* (one of its



ROSE *MME. D'ARBLAY*. (There are many fine plants of this in Messrs. Cooling's nursery.)

parents), but the brick-red flower sprays are of an attractive and somewhat unusual shade, and once the plant is established they are most freely produced. Our experience of this Rose is that it takes some time to become established, but then its vigour and freedom of flowering leave nothing to be desired. *Claire Jacquier*, *Leuchtstern*, *Psyche*, *Mme. Carrière*, and other climbing Roses are here seen at their best.

Messrs. Cooling make a feature of *wichuraiana* hybrids; nothing can well be more beautiful or more uncommon than some of the best of

many thousands of bush and standard Roses in their nursery higher up the hill, and a few days ago these were finely in flower. It is needless to mention the varieties, for practically all that are worth growing were to be seen. Many new ones also were being tried, and these, after being thoroughly tested, will be either retained or rejected according to their merits. Full particulars of their Roses will be found in Messrs. Cooling's Rose guide, but we must just mention Cooling's *Crimson Bedder*, one of the most handsome garden Roses. In fact, garden Roses are a feature in these Rose nurseries, and those who have seen the displays at various flower shows throughout the country will remember the beautiful bunches of these free-growing Roses that Messrs. Cooling never fail to exhibit.



ROSE *HELENE* AS A WEEPING STANDARD IN MESSRS. COOLING'S NURSERY AT BATH.

these, either trained over arches or as weeping pillar Roses or as weeping standards. Their slender, graceful, and semi-pendent habit of growth renders them especially suitable for the weeping standard form, and they make delightfully natural pillar Roses also if the growths are loosely trained and allowed to hang down. *Alberic Barbier*, one of the best of the *wichuraiana* hybrids, was shown growing over an arch in a recent issue of *THE GARDEN*. We saw some grand masses of the Musk Rose and of various Briers. What a pity the flowers are so fleeting is the thought immediately suggested.

Messrs. Cooling grow

WORKERS AMONG THE FLOWERS.

MR. C. E. SHEA.

ONE of the most enthusiastic of horticulturists is Mr. C. E. Shea, the president of the National Rose Society, an office he has filled since the death of Dean Hole with great ability and tact. We have met Mr. Shea on many occasions, and will ever remember a day, years ago, spent among the Chrysanthemums at The Elms, Foots Cray, where he has resided for thirty-four years. The gardens have a quaint Old English charm, and contain an excellent collection of fruit trees and Roses. The first flower which gained the affection of Mr. Shea was the Chrysanthemum. Not only were flowers grown for the decoration of the home, but for exhibition also, the forty-eight blooms of Japanese varieties which gained the first prize at the annual show of the National Chrysanthemum Society being among the most memorable ever displayed there. The writer remembers the incident, and on another occasion Mr. Shea was first also at the same exhibition. Indeed, it would require a long list to chronicle all the successes of the Chrysanthemums from Foots Cray during those years.

Resting content with many victories in the Chrysanthemum field, this earnest amateur gardener turned his attention to the problem of creating English-raised new

varieties of *Chrysanthemums*, and was probably the first who achieved success. At that time new *Chrysanthemums* came chiefly from abroad, but the advent of such varieties as Miss Dorothea Shea and Miss Elsie Teeihmann, both Mr. Shea's seedlings, encouraged other growers to raise new forms.

Rose exhibiting then became Mr. Shea's delight, and again many prizes were won with the almost faultless flowers from Foots Cray, but the striving for the mastery in the exhibition has given way to the more restful pursuit of growing Roses for garden decoration.

Mr. Shea succeeded Sir Albert Rollit, M.P., as president of the National *Chrysanthemum* Society, which office he still holds, and was for many years a member of the council of the Royal Horticultural Society. We hope this diligent horticulturist will long be spared to continue his beneficent work among the flowers and take an active part in horticultural organisations.

NOTES ON LILIES.

LILIES AT THE CHELSEA SHOW.

AS might be expected, the magnificent group of hardy flowers arranged by Messrs. Wallace of Colchester at the recent exhibition of the Royal Horticultural Society contained examples of so many beautiful Lilies that it served admirably to illustrate the great wealth of flowers which in that genus alone can be obtained about the middle of July. Representatives of all the different groups into which the genus *Lilium* is divided were noted, and the distinctive features of each could be readily compared. Though so universally met with, even on costermongers' barrows in the streets of London, the delightful silvery trumpets of *Lilium longiflorum* are always admired, and such a group as that contributed by Messrs. Wallace, which embraced the finest forms, served well to illustrate the superiority of the modern kinds, grown principally in Japan and Bermuda, over the typical *L. longiflorum* sent here by the Dutch, when our only supply was obtained from Holland. Of other trumpet Lilies there was a particularly fine group of *Lilium Brownii*, and also of the allied *L. japonicum colchesterense*. Between these two a good deal of controversy has at different times raged, but concerning their distinctness from each other no unbiased person could for one moment entertain any doubt. Still, I must protest against the botanical nomenclature of the two, for while *L. Brownii* is allowed to stand as a distinct species, the other is classed as a variety of *L. japonicum* (Krameri of gardens). The Lily bearing the name of *L. japonicum colchesterense* is also known as *L. odorum*, and if priority of nomenclature counts for anything this last should, I think, be still retained. At all events they are two beautiful trumpet Lilies, and there are not many gardens where a place might not be found for both of them.

Lilium Krameri above alluded to was also well shown, its pretty blossoms being quite distinct from any other species. It is, however, a difficult Lily to keep in health; in fact, a supply is kept up only by continual importations. These last remarks apply with equal force to the golden-rayed Lily (*L. auratum*), which is indispensable in a group of Lilies at this season of the year. The Nankeen Lily (*L. testaceum* or *excelsum*), whose origin is doubtful, stands out as one of the most distinct and stately members of the entire family. A notable feature of this Lily, especially when planted out of doors, is the graceful manner in which the prettily reflexed nankeen-tinted blossoms are poised on the long, wand-like stems. It is supposed to be a hybrid between the Madonna Lily (*L. candidum*) and *L. chalcidonicum*, and certainly its appearance and general behaviour would tend to bear out that theory.

The bright sealing-wax-like flowers of the last-named (*L. chalcidonicum*) were conspicuous by

being of a soft yellow colour; in fact, the tint is a good deal in the way of the exceedingly graceful but rare *Lilium Leichtlini*. That pretty member of the Turk's Cap family, *L. Hansoni*, was very attractive, the soft yellow petals, as thick as if cut out of wax, being totally unlike those of any other Lily. As a rule the members of the Martagon or Turk's Cap group are not very amenable to pot culture, but this can be depended upon under that mode of treatment. The yellow-flowered *L. canadense flavum*, the red-flowered form (*rubrum*), and the allied *L. Grayi*, whose flowers are even deeper coloured than those of the last-named, were all well shown, and of other Lilies with rhizomatous bulbs the Panther Lily (*L. pardalinum*) was freely represented. A new variety (Johnsoni) in Messrs. Wallace's collection was distinct, owing principally to its richness of colour. It was obtained from British Colombia, but is at present rare. The members of the Isolirion group, of which the old Orange Lily (*Lilium croceum*) furnishes a good example, are nearly over by the middle of July, but a form of *L. elegans*, known as Orange Queen, was very fine.

This list by no means exhausts the number of Lilies seen during a walk round the tents, for represented to a greater or lesser degree were *L. giganteum*, *L. croceum*, *L. bloomerianum* and its variety *magnificum*, *L. speciosum*, *L. superbum*, *L. tigrinum*, *L. elegans*, *L. Martagon*, and *L. umbellatum*. An extremely pretty and interesting Lily of Mr. Burbank's raising was noted in Messrs. Wallace's group. It is a hybrid between *L. pardalinum* and *L. Humboldtii*, the plant, in habit, foliage, and flower, being about midway between the two. The major portion of the flower is a soft salmon-red, a very pleasing tint. When established, this Lily will no doubt be very fine. H. P.



MR. C. E. SHEA. (President of the National Rose Society.)

their colour, and in proximity to the ordinary form the variety *maculatum* were very noticeable. This is altogether a larger and bolder grower than the type, and though believed to be known in Parkinson's day, it is even now very rare. The scarlet Turk's Cap, as *L. chalcidonicum* is popularly termed, is one of those Lilies that succeeds best in a moderately heavy loam, and once established it resents disturbance at the roots. The Madonna Lily (*L. candidum*) was, as might be supposed, met with here, there, and everywhere, but it is such a charming flower that it can scarcely be overdone.

Lilium Henryi was strongly represented, several groups of it being noted. One example was conspicuous from the rest owing to the flowers

opening slowly, lasted in full beauty for about six weeks, but as growth goes on until autumn other racemes, more sparingly produced, continue the display. *Menziesia polifolia* is a noble Heath, and forms, when allowed sufficient space, fine large masses. A small plant purchased in 1895 now measures 10 feet across. *M. p. alba* is a great favourite with visitors, its bright green foliage and pure white flowers attracting much attention. Unfortunately for its value as a cut lower, the bells soon fall off when handled or packed. The erect-growing *M. p. atropurpurea* bears its rich rosy purple flowers on darker stems and foliage than the type. As an odd mixture, *M. p. bicolor* is unique, purple, white, parti-coloured, striped, and delicately flushed

THE FLOWER GARDEN.

NOTES FROM A SUSSEX HEATH GARDEN.

THOUGH the full glory of the Heaths has yet to come, many of the most charming kinds are already in flower. *Erica australis* faded

with the spring, having continued in bloom fully five weeks. Before its flowers had changed to russet brown the Irish Heaths had made new growths several inches long, terminated by an erect raceme of pendent urn-shaped bells; these

blossoms may be picked from the same plant. At the present time (June 28) there is no finer Heath in flower than *E. cinerea rubra*. Its rosy crimson flowers in fading assume an almost blood-red tint. It is the earliest variety of the species, opening quite four weeks before *E. c. alba minor*, a small pure white variety, which is closely followed by *E. c. major* and *E. c. pallida*, the latter having flowers of a purplish white.

Among other plants which have been used to give variety and emphasise the elevated portions is *Rhododendron myrtifolium*; it is not at all fastidious, growing freely in turfy loam. A handsome plant at any time, it is especially so when covered in May or early June with its rosy pink flowers. A beautiful effect may be obtained by planting it among the sage green *Erica tetralix*, which opens its flowers slightly later. The slender but tough growth of the latter was at one time much used in this neighbourhood in the manufacture of brooms for the cottage housewife, but although still sold the demand is much less than formerly. The white form—*E. t. alba*—is very pretty, but the flowers, unlike those of *E. t. rosea*, which turn from a pale pink to a deep rose, are not improved by age. An easy way to propagate *E. tetralix* and *E. cinerea* is to mulch deeply with peaty leaf-mould, into which the numerous stems root readily in summer, and form nice plants when divided and replanted rather deeply in autumn; *E. ciliaris* is amenable to the same treatment. The Whortleberry (*Vaccinium Myrtillus*), having shed its pink flowers in April, has now in their place fruit of a deepening purple.

Erica stricta is flowering very freely this year, its tall, rather erect, growth is now covered with dull pink flowers. This is a capital hardy strong-growing Heath, useful for planting on the summit of a bank as a shelter to the more tender varieties below. Planted in peat among pieces of sandstone, the little *Bruckenthalia spiculifolia* seems quite at home, and produces its not very conspicuous soft pink flowers at the apex of its strongest growths. The recent rains have assisted the *Callunas* to make a free growth,

and three varieties have flowers already expanded, viz., *C. v. Searlii*, *C. v. tenuifolia*, and *C. v. stricta*. The first, although of rather thin growth, is valuable on account of its earliness; the second, of dwarf attenuated habit, has exceptionally large flowers of bright purple; and the last is, as its name implies, restricted in growth, and of a peculiar flattened appearance.

The foregoing are the most notable summer flowering sorts, but many others are giving signs of a display later on.

J. COMBER.

The Gardens, Nyman's, Crawley, Sussex.

I.—THE GARDENS OF WARLEY PLACE.

BOTANISTS, gardeners, and artists look to the celebrated gardens at Warley as to a place of willing pilgrimage. These gardens have the advantage of an excellent climate, and though only twenty-four miles from London, are completely free from its foul fogs and smoke. The soil is good and the temperature mild. Here, sheltered by the Evergreen Oaks and the Spanish Chestnuts planted by John Evelyn,* and admirably grown, are plants from the Cape, from Japan and China, from the Mediterranean, from Australia; and, side by side with these, those of the high Alps and the Arctic and Antarctic regions. In spring the lawns are beautiful with the early flowers—*Crocus*, *Galanthus*, *Leucojum*, *Eranthis*, and above all *Narcissus*; all well grouped about the grass and forming wonderful pictures. Groups of trees and shrubs, picturesque scenes of natural beauty carefully designed, points of view delightfully arranged, flash upon the beholder and compel his admiration.

These gardens, for there are several, now rendered famous by the work of Miss Willmott, are among the most important that any botanist, whose special study is hardy plants, can wish to see. La Mortola on the Ligurian coast, Wisley in Surrey, the gardens of the late Mr. Wolley Dod at Edge Hall in Cheshire, and of Mr. Gumbleton at Queenstown in Ireland, the botanic gardens of Kew and Edinburgh are the only ones that for comprehensive wealth of plants can be compared with Warley, only, perhaps, excepting Mr. Crisp's beautiful place at Henley-on-Thames, where the alpine garden is one of the best I ever saw. In a few years it will be a thing of remarkable beauty, both as rockwork and garden landscape. The collection of plants is also a very good one. The collections are so important that a botanist may spend several days among them, noting and observing, and even then scarcely come to an end of the material for study.

Not only is Miss Willmott a botanist of distinction† and a consummate gardener, but a garden-artist as well. She plants, not by set rules, but by the guidance of her own taste and inclination. One feels that there is no striving for meretricious effect, but only for the right use and reasonable display, in accordance with its natural affinities, of each of the species represented. It is just this artistic quality that so greatly impressed me, for it seemed to give the collections their truest value.

One cannot but feel that the place was worthy of the work. The Warley property stands high on hilly ground, with wide views over wood and valley. The house is of a refined manorial type of some importance and antiquity. Its walls are well furnished with climbing plants. It is surrounded by an extremely well-planted park, containing handsome old Oaks with hollow trunks, Cedars, and several natural ponds that have the effect of little lakes. Looking many ways are pleasant views, and gentle slopes lead down to the valley.

It was well planted in the old days, and the older work has been adequately maintained. But something was wanting—the brightest life of vegetation—and it is just this living beauty, in all its warmth and intensity, that the mistress of Warley has so lavishly added to its other attractions.

From earliest spring the wide lawns become carpeted with myriads of flowers. Large groups of *Crocus*, *Galanthus*, and *Leucojum* spring out of the grass, and astonishing quantities of many kinds of Daffodil. The groups fall into fine masses, forming pictures of remarkable beauty.

The genus *Narcissus* is above all at home at Warley, where large areas of ground are devoted



IN THE ROCK GARDEN AT WARLEY PLACE.

* Warley formerly belonged to Evelyn, who laid out the garden and planted the park.

† Miss Willmott is engaged on several works, in collaboration with botanists and artists of the highest rank. Those on the genus *Rosa*, as well as those on *Iris*, *Narcissus*, &c., are in course of most careful preparation.

to it. There are several spaces of trial ground given to the improvement of the species and varieties of this flower, so popular in England, and so often honoured by awards at horticultural meetings. Miss Willmott grows over six hundred species and varieties.

Every year the gardens at Warley extend; even the large kitchen garden has become a trial ground. Here is a collection of Tulips, especially of the species, among which are seen the types of those that are natives of Savoie and several new Eastern species. Here also are many kinds of Iris, Delphinium, and Phlox, and, above all, the vast collection of plants of the late Dr. Jordan, botanist of Lyons. He had got together, for purposes of special study, an enormous quantity of plants in all their natural forms. These collections were acquired by Miss Willmott, the greater portion of them being sent over to Warley, where they occupy a large space of ground. The collection is of great scientific value, offering a wide field of material for the study of the fixity of species, this study having been the chief object of Dr. Jordan's investigations.

H. CORREVON.

(To be continued.)

ROSE GARDEN.

RAMBLER ROSES FOR HEDGES.

NO opportunity should be lost of planting Rambler Roses as hedge plants, even though not bordering the Rose garden. Who will say a hedge of these beautiful Roses does not possess a greater charm and give more satisfaction than the formal clipped Privet hedge? And a little cultural skill will keep them in perfect health and vigour. Prepare the ground by trenching two spits deep, and incorporate farmyard manure liberally. Planting may be done either in autumn or spring. Cut back the plants the first year to within 1 foot of the ground. This in the end makes the best hedge. A wire or two stretched to Oak posts would enable one to tie the growths in a little more regularly, although with some sorts which grow erect this is not really necessary. Set the plants in a single row 2½ feet apart. Tread the soil firmly a week after planting, and again later on if needful. Many Rose plants are lost annually from neglect of this simple precaution. For bordering the Tea Rose garden hedges of the wichuraiana Roses are in good taste. These, if allowed to grow about 5 feet to 6 feet high and then droop over, make a very graceful hedge. Dorothy Perkins, Gardenia, Jersey Beauty, Alberic Barbier, Pink Pearl, Rene Andre, Paul Transon, Elise Robichon, &c., treated in this way are delightful, and if

thought desirable a growth or two could be led up still higher and in time droop down, which would give novelty and charm to the hedge.

Then a hedge of Crimson Rambler and Félicité Perpétue planted alternately would have a very pleasing effect, another of Waltham Rambler or Blush Rambler, another of Electra, another of Una (the earliest to bloom), followed by The Lion, and another of Wallflower. Psyche and Ruby Queen blossom together, and would make a charming hedge, and, of course, Aglaia would be wanted. Conrad F. Meyer would make a wall of sturdy growths; the reddish tips of the shoots are almost as beautiful as the silvery pink blossoms. Majestic hedges

distinct hybrid between a Briar and a Tea Rose, but, unlike Una, the beautiful early-flowering Hybrid Briar, this variety partakes more of the Tea nature than it does of the Briar. It grows as freely as Gustave Régis and such like Roses, and would make a lovely pillar or free bush. The blossoms are quite 3½ inches across, and are of a lovely pink and yellow shade, the latter colour predominating. A trio of beauties would be Morgenroth, a perpetual-flowering Carmine Pillar, only much less vigorous, as a centre, then a circle of Gottfreid Keller, and an outer circle of Bardou Job.

Most attractive groups could be made with Roses of a similar type, such as the three named above, and there is a distinct advantage in planting such Roses, as they are a welcome relief to the masses of Hybrid Teas in the Rose garden. Should additional variety be desired, there are several more perpetual single Tea Roses, such as Irish Beauty, Irish Glory, Engineer, and Irish Harmony. A few of them budded on half standards, and interspersed over a large bed, would add an additional charm to a group of interesting Roses. R.



GROUPING OF LILIES IN MISS WILLMOTT'S GARDEN.

are made with the glorious Penzance Briars and Carmine Pillar, only they are very early flowering, and should be planted where the old-fashioned early Roses abound. Rugosa Roses may be mixed very advantageously for hedge work. The type R. rugosa is not a desirable Rose for the garden, but is excellent in a wild garden or wood. P.

ROSE GOTTFREID KELLER.

THIS is a charming single Rose, and one that should be freely planted. To describe it as an improved Lady Penzance would not be far wrong, but it has the additional merit of being a perpetual bloomer. It shows evidences of being a

the near future. Being perpetual flowering, another splendid novelty is added to the gradually growing group of autumn-flowering Ramblers. This Rose will make a good companion to Alister Stella Gray for growing on pillars about 5 feet high. Plant them alternately in a large bed with a front row of Eugenie Lamesch, and a charming bed will be the result. P.

THE LION RAMBLER.

THIS is a charming companion to Carmine Pillar, but is a much prettier Rose, having an almost clear white centre. It is exceedingly attractive, and well adapted for growing over a stump or pergola. Its season is later than Carmine Pillar, and the flowers are brighter. G. BURROWS.

ROSE LADY WATERLOW.

Few of the recent additions to climbing Roses have attracted more attention than this, which is not to be wondered at by those who know the Rose. It is one of those beautiful semi-double sorts that never seem to lose their beauty, for, even when full-blown, the dainty colouring and scalloped edges to the petals are great attractions. The colour is a mixture of apple-blossom pink, cream, and blush. The buds before they open are very handsome and the growth is strong, making it a useful variety for pillar or wall, and as a free bush it will be very fine. P.

ROSE CLIMBING CECILE BRUNNER.

A PERFECT Rose in miniature is the bloom of Cecile Brunner. In tint and form it reminds one of a diminutive production of a perfect Augustine Guinoisseau. This comparatively old variety is well known, and is extensively grown, forming grand bushes. Now we have a climbing form which bids fair to achieve a wide popularity. On one year old plants the shoots attain a height of some 4 feet, and flower most profusely. What they will do with age can only be imagined, but I anticipate seeing some very beautiful pillars of this Rose in

GARDENING FOR BEGINNERS.

SIMPLE HINTS.

LAYERING CARNATIONS.—We have lately published several notes about layering Carnations, so that now we will briefly refer to the most important points only. One essential item is to have the growths fully exposed to sun and air. Do not let other things encroach upon them and overcrowd them. If this is the case the Carnation growths will be soft and spindling, and there is then little hope of rooting them. All experienced growers admit that there is no better means of getting the growths well ripened than by exposure to the sun. When the plants have finished flowering, cut down the stems, and give the old plants a good watering before commencing to layer. To prepare the shoots for layering, remove the lowest leaves and shorten the ends of the others. Then with a pointed stick remove about 2 inches of the surface soil around the plant beneath the young shoots, and fill with fine sandy soil. Plenty of sand is necessary, for it encourages rooting. Then take the shoot to be layered, and with a sharp knife cut through a joint. A tongue is thus formed, as is well shown in the illustration. In making this cut through the joint, it is better to pierce the middle of the shoot and then draw the penknife down through the joint, thus making the slit. Then press the layer very gently, though firmly, into the soil, and fasten it down, as shown, by means of a peg. Take care that the layered shoot is well covered with soil; put some over it if necessary. It is all important to keep the air from the layer. If this work is done at the end of July or early August the layer may be expected to root in five weeks. Keep them moist during hot, dry weather, but do not, of course, saturate them. The soil should be sprinkled through a fine rose watering-can. When the layers are well rooted they may either be potted up and put in a frame for the winter, or they may be planted out in a prepared border. They may also be allowed to remain where they were layered. Fine masses can be had in this way.



HOW TO LAYER CARNATIONS.

simple matter that no one need be without an increased stock of his or her favourite variety another year. Three of my favourites are Blue Diamond (a good blue), Isolde (yellow), and Kitty Bell (pale mauve), and these I hope to be able to increase largely. First, in a shaded corner of your garden, prepare a bed of light sandy soil, say, 3 inches deep, in which to insert the cuttings. If you take some of the ordinary border soil and sift it well, adding some leaf-soil and silver sand, you will have a compost that will root the Pansy cuttings quite easily. Select growths from the base or centre of the plant, and preferably those which come from below the soil. These can often be pulled up with roots attached already, and then, of course, they can hardly fail to succeed. You will not be able to get sufficient of these underground cuttings, however, so the rest must be side shoots, cut from near the base of the stems.

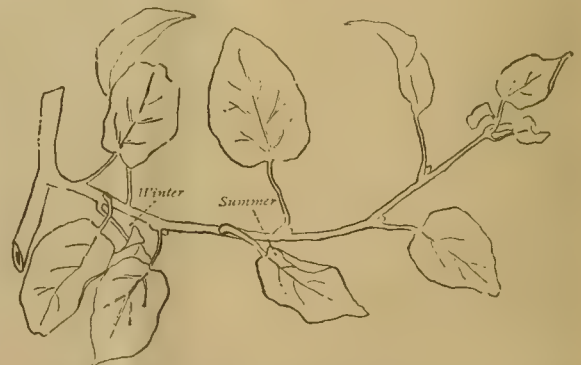
Choose those which are about 2½ inches long, and are sturdy and firm. Avoid those of large and sappy growth, for it is a much more difficult matter to root these successfully, owing to the greater leaf surface and consequent greater evaporation. Cut off the cuttings just below a joint, remove the lower leaves, and cut away half the other biggest ones. Then with a small stick with square-cut base make a hole in the prepared bed of soil; insert the cutting, making sure that it touches the bottom of the hole, and make it firm at the base by pressing soil against it. When all the cuttings are inserted, cover with a hand-light, bell-glass, or box with a glass top. In about three weeks' time, providing the sun does not reach them and the glasses are wiped dry with a cloth every morning, they ought to be rooted.

Pruning Apple Trees.—Amateurs and beginners in gardening are often puzzled to know what to do with the numerous side shoots which are produced upon their Apple trees during the summer months. The accompanying illustration shows well what ought to be done, and now is the time to do it. These lateral growths should be pinched at some six or seven leaves from the base at the end of July or early August, and then at the winter pruning the pinched shoots should be shortened to within four buds of their bases. The object of summer pruning is to encourage the formation of fruit-buds at the base of the shoot instead of allowing the growths free play during summer-time, and having to cut them hard back in winter. If this is done, instead of fruit-buds forming at the base more growths only will result. In the case of bush and pyramidal trees, however, advantage should be taken of some of the long shoots to leave them almost their full length, for fruit-buds will eventually form all along them. With Apple trees grown as espaliers and on walls, however, spur pruning is the most convenient method to adopt.

Good Garden Roses.—It is a pity that so valuable and beautiful a Rose as Grüss an Teplitz should have such a cumbersome name. However, this Rose, "Greeting to Teplitz," is one of the finest for the beginner to plant. It is a good autumn flower; in fact, in my small town garden it is just beginning to open while many of the others are past their best. It is best suited when planted against a low trellis or fence. It makes vigorous shoots, which produce a profusion of flowers. They are too long to support themselves properly, so that a low fence or trellis just gives them the help they require. The flowers are not very full, but they are a splendid colour, rich velvety crimson; the foliage, too, is remarkably attractive, bronze when young, but becoming greener with age. It is a Rose that everyone should have in their garden, and it is especially a beginner's Rose; it will carry the Rose display far on into the autumn. Another Rose that all should have is Viscountess Folkestone, a grand free-flowering garden Rose; the flesh-pink, well-formed fragrant buds, and, later, the paler, fuller flowers are a rare delight. What a delightful Rose Dorothy Perkins is! Although only planted late in March last, it is now making vigorous shoots, and bids fair soon to cover some rustic trellis against which it is planted. A few of last year's growths which were left at pruning time are now producing bunches of their charming rich pink blossoms, and there will be a rich harvest of them next year, judging by the growth that is being made now.

A Group of Clematis Jackmani.—This is one of the hardest and best of the Clematis family, and, besides being suitable for planting against a wall or on an arch, it is well adapted for making a mass of purple colour anywhere, as it is perfectly hardy and may be cut back freely after flowering. When planted in groups and trained to half-a-dozen stakes in the front of the shrubbery or on the margin of the lawn it is very attractive.

Creeping Jenny (Lysimachia Nummularia).—This is a British plant; I have found it growing wild on shady banks in the Midlands and elsewhere, but it is a most useful plant for the town gardener. I remember some years ago, out



BRANCH OF AN APPLE TREE, SHOWING HOW TO PRUNE A SIDE SHOOT IN SUMMER AND IN WINTER.

Plants Flowering Twice.—Everyone knows the old Geum coccineum, a handsome border plant with tall, branching stems of scarlet flowers. I have several plants of it planted last spring, and in May they began to flower. Early in June all the flower-spikes were cut off for house decoration, and we thought we should have few more flowers from the same plants until next year. However, in three weeks' time they were again in flower, and their second blooming is much finer than the first. They promise to go on for some time, for no sooner has one branchlet finished flowering than another begins. The colour of the blooms, too, is so very bright; they make a brilliant bit of colour in the border, and they are not like some plants which give effect at the expense of loss of grace. The tall, slender, branching flower-spikes render them among the most graceful of border plants.

Taking Pansy Cuttings.—If one wishes to increase the stock of any particular sort of Tufted Pansy or Viola, now is the time to take cuttings, and they root most easily. It is such a

Battersea way, seeing it used to make a small lawn instead of grass, and very well the work was done. Near where I am writing there is a mass of it, completely covering the ground with golden blossoms very effectively. Though occasionally used in this way it is more often found in boxes

as a balcony plant, and it is quite at home in any position. When permitted to trail on the ground it sends out roots at every joint, so there is no difficulty in working up a stock.

Potting Freesias and Roman Hyacinths.—Freesias should be potted early in August. They are usually grown in 5-inch pots, ten or a dozen bulbs in a pot. The largest bulbs do not always flower the best. It is mainly a question of ripening in the sunshine. Roman Hyacinths are now coming to hand, and should be potted at once. We usually force the medium-sized bulbs, which are weighty and well ripened. Four bulbs in a 5-inch pot will make a good potful. Cover the Hyacinths 3 inches deep with cocoa-nut fibre or ashes for six weeks. Freesias may be left uncovered, as covering weakens the growth.

Summer-flowering Shrubs.—The list of shrubs which flower in August is not a long one, but among those which stand out prominently now is the Buck's-eye Tree (*Pavia macrostachya*), a North American shrub, which forms a spreading bush some 8 feet or 10 feet high, producing freely spikes of creamy white flowers. The *Catalpa syriaca* is another interesting small tree from North America flowering in August. Plant in deep warm soil in a sheltered position. I have had it do well in the Eastern counties. The foliage is large and handsome, and the flowers are pretty and appear in August. *Hydrangea paniculata grandiflora* makes a very effective mass on the margin of the lawn, as does also the Venetian Sumach, *Rhus Cotinus* (Wig Tree). *R. lacinata* is a very handsome shrub of taller growth, with finely cut elegant foliage. There are other species well worth growing if there is room to make a group of them. In warm situations near a wall the Escallonias are handsome autumn-flowering shrubs. I have seen hedges planted with *Escallonia macrantha* near the sea. It makes a handsome shrub in the south.

Planting Strawberries.—The sooner these are planted now the better they will bear next season. Plant only strong plants which have been specially selected and prepared. The land should be in good condition from previous manuring if possible. We generally trench a piece of ground in winter, manuring it well, especially on the bottom spit, and plant early Potatoes in March early in the month. When the Potatoes come off, a dressing of short compost is given and lightly forked in. A dry day is chosen, the surface being trodden to get the necessary firmness. The plants are then planted, made firm, and a soaking of water given to settle the roots into position. A little dry soil is hoed round the plants, and if the weather is hot and dry a further watering may be given if required, but if rain comes soon this may not be necessary.

As regards varieties, new sorts should be tried on a limited scale only by all who want to keep abreast of the times, but never discard a good old sort which the work of years has proved to be reliable till a better one has been found and proved after repeated trials. On a deep, warm soil British Queen is yet unbeaten in flavour. Sir J. Paxton still holds its own. Royal Sovereign has made its position, especially as a forcer, though its flowers come too early for planting outside in low-lying districts where spring frosts prevail. The Laxton is making its way for outside planting, though not as a forcer. Elton Pine when true is a useful late variety, and for unfavourable positions Garibaldi or Vicomtesse Héricart de Thury has been found reliable. Though not large in size, it is an abundant bearer.

Bits of Rockery.—I very often visit a garden where the proprietor has gathered together from various sources a nice collection of alpine, hardy Ferns, creeping plants, &c., and, instead of making a rock garden in the usual way, he has

created special sites in the most suitable positions for the various families, which can live together without crowding or robbing each other. Thus in one shady spot we find shade-loving plants which require peat intermixed with bits of sandstone or limestone where this is required. In another shady spot a rockery has been put together to suit Cyclamens, Primulas, and so on, some in shade and others in sunshine all about the place. Where one's hobby is a limited one, this is an interesting way of treating those families one is interested in, and may be extended at pleasure. The plants certainly appear to thrive when specialised in this way. Perhaps it is because they come more directly under the eye of the cultivator. I have often thought the idea might be successfully applied to other subjects, especially in the case of beginners who wish to grow selections rather than collections of plants.

Among the Climbing Roses.—A good many of these have now finished flowering, and it is important that the old growths of such sorts as Dorothy Perkins, Crimson Rambler, and Leuchstern, to mention a few only, should be cut clean out, so that the young shoots which will flower next year may have every opportunity of making good, well-ripened growth. Upon this depends the success or otherwise of next year's flowering. It is important also to encourage good growth by manuring and well watering. Thin out the growths if they are too numerous; it is far better to have a few well-developed and ripened growths than to have numerous small and crowded ones.

GARDENING OF THE WEEK.

FLOWER GARDEN.

CARNATIONS.—Recent rains, after such a drought, have brought much of the "grass" of Carnations into good working order for layering, neither too tough and hard, nor yet too soft and brittle, so preparations should be made forthwith by mixing up a free open compost, consisting of loam and leaf-soil. Add sand according to the texture of the loam used, and place a good dressing of it around each plant intended to be layered. Strip the lower leaves off three to five of the strongest and best placed shoots, according to the strength of the plant and the number required, cut halfway through a joint and insert in the prepared soil, taking care the tongue is open (by putting the spur in the ground perpendicular this will be assured), peg firmly down and cover the slit part with fine soil, keeping the whole fairly moist until roots are formed. Before layering ascertain the condition of the soil about the roots of the stock plants, if dry give a good soaking of water, for it will be difficult to water them thoroughly after the layering, as nothing but a fine rose watering-can must be used. Proceed with

BEDDING ROSES during favourable weather, viz. dull and showery, or failing that in early morning and late evening.

AUBRETIAS, ARABIS, &c.—The present is a favourable time for propagating the above by cuttings. Slip off clean healthy growths, strip a few of the lower and decayed leaves, and insert thickly and firmly in sharp sandy soil in a somewhat shady position, and nice plants for the spring garden will result. The various

ANNUALS intended for the spring display must be pricked out in beds as quickly as they can be handled, shading and watering according to the state of the weather. For convenience of later lifting, and to ensure as good balls of soil as possible to adhere to the roots, it is advisable to work in a liberal quantity of rough leaf-mould or spent Mushroom manure. The rootlets will quickly take possession of these and cling to them wonderfully well.

SMALL CONIFERS AND SHRUBS intended for furnishing the beds through the winter and spring months must not be neglected in the matter of watering, feeding, and trimming, but kept growing freely. Each specimen, large and small, must be kept symmetrical and evenly balanced, and this is best done by periodical and careful inspection, nipping the point of a branch here and there and giving an occasional thinning where growth is too dense. Syringe frequently in dry weather, both to encourage clean growth and to keep down insect pests. JOHN ROBERTS.

The Gardens, Tan-y-bwlch, North Wales.

ORCHIDS.

CATTLEYA GIGAS.—By this time many plants of *Cattleya gigas* will have finished growth; several have done flowering, and there may be some which will require repotting or fresh material substituted for that which is decayed. The best time for such work is about a fortnight after the

plants have gone out of flower or immediately growth is completed, because about this period the last-made pseudo-bulbs send out from their base a number of young roots that will quickly work into the new compost. If the work of repotting be delayed until the roots have started, many of them are likely to get injured during the operation. *C. Rex*, *C. dowiana*, and its variety *aurea* will be flowering about this time, and should be similarly attended to soon after the flowers fade. Use the best fibrous peat, leaf-soil, and sphagnum moss in about equal parts, adding a moderate quantity of broken crocks and coarse silver sand. The soil should be thoroughly mixed before it is used. When repotting keep the base of the plants down to the level of the pot. Give plenty of well-dried Fern rhizome for drainage, and fill up to within half an inch of the rim with the compost, finishing off with a layer of chopped moss, which should be pressed moderately firm around and well up to the rhizome of the plant.

With regard to plants that are in an unsatisfactory condition, they should be turned out of their pots, have all the dead roots cut off, and the whole plant be thoroughly cleaned. It is not necessary or advisable to leave on a number of useless back bulbs, as it is sufficient if two or three are left on behind the last-made growth. When treated in this way the plants generally will not require pots so large as those they came out of, and should be placed in clean ones of suitable size. Large and heavy pseudo-bulbs should be made perfectly firm in their places by means of neat stakes. If it be found desirable to propagate any special variety of these species, the back bulbs may be put into the smallest pots possible, and these should be filled with moss only and suspended well up to the roof, and next year may be repotted and treated as the older examples. When repotted the plants should be placed at the coolest end of the Cattleya or intermediate house, where they may obtain sufficient light and air to thoroughly consolidate their newly-made bulbs. Until the repotted plants are re-established, water should be afforded only in small quantities, just sufficient to prevent much shrivelling or loss of old roots. A slight shrivelling does no harm, as the bulbs will readily plump again when growth recommences. Even the plants that do not need repotting should not be too copiously watered, or they may start away into growth instead of having a long rest. Probably owing to the exceptionally hot weather we have lately experienced there are some plants of

LÆLIA PURPURATA already beginning to grow afresh. Such plants may be repotted or fresh material afforded when the growths are 2 inches or 3 inches high; it is then the new growths send out fresh roots, which at once will enter the fresh compost. Raise the plants of this species well up to light in the Cattleya house, and give them liberal treatment in every way until growth is completed. *Cattleya lawrenceana*, *C. speciosissima*, and *Lælia cinnabarina* are also starting to grow, and should be treated likewise. Other plants, as *Cattleya Aclandiae*, *C. schilleriana*, and *C. superba*, that have just finished flowering should now be given a short rest. Suspend them well up to the light in the intermediate house, gradually diminishing the quantity of water, but give sufficient to prevent the bulbs from shrivelling or the leaves from turning yellow. When growth recommences more heat and moisture should be afforded them. The

NIGHT TEMPERATURES for the present should be as follows: East Indian or warmest house, 70° to 75°; *Cattleya*, 65° to 70°; Mexican, about 65°, with plenty of ventilation; cool house, if the external will permit, 55° to 60°, affording abundance of ventilation in this house whenever the external air is warm and damp. The higher degree of warmth in the houses should be the last thing at night, and the lower one the early morning temperature.

Burford Gardens, Dorking.

W. H. WHITE.

KITCHEN GARDEN.

LETTUCES.—This is a salad much sought after, and care must be taken to keep up supplies sufficient for the demand. As a rule there is little difficulty in having them in abundance during the summer months, but as autumn approaches, with its shorter days and longer nights, there frequently occurs a scarce time. To prevent a scarcity a good sowing should now be made on fairly rich ground. A piece which has been cleared of some root crop, such as Potatoes or Carrots, will answer admirably. Should manure be required, that which has been turned and well decayed should be used. This, if not buried too deeply, will produce fine and crisp Lettuces. The place chosen should be fully exposed to the sun, but well sheltered from the wind, which in autumn is generally accompanied by heavy rains, and these prove more disastrous than any frosts likely to be experienced. Bath Cos and Brown Dutch may be sown now.

SPINACH.—A good size plot of ground should now be prepared for winter Spinach. It is a wise plan to make two sowings at this time in different positions, choosing a south border for the one and a more exposed part for the other. It is a curious fact that in some seasons winter Spinach succeeds best without shelter of any kind. Should both lots do well, the border crop will be the earlier, and thereby the season will be prolonged. Spinach must be grown on ground both deep and rich, made moderately firm. The prickly Spinach sown at this date stands well on the ground during winter and efficiently meets the spring demand. Sow the seed sparingly so that the plants may grow dwarf and sturdy. A few rows of the round Spinach may also be sown at this time from which an earlier cutting may be obtained. In some parts this variety succeeds as well as the prickly for spring gatherings.

SAVOYS AND BROCCOLI should be planted out as the ground becomes vacant. It is an established principle in

the art of gardening that ground kept fully occupied at this season means a sufficiency of green stuff during the winter months. Plants which were pricked out or thinned in the seed rows are now in fine order for moving, especially when well watered the day previous to being planted out. Although the soil is moist at the time, I make it a rule to water immediately after planting, thus setting the soil about the roots and lessening the ordeal of removal.

CABBAGES planted last April are nearly all cut, and to forward the second crop, which will come in useful during December, all old leaves should be cleared off, put in a heap to decay, and return to the garden at a future date. When the Cabbage plot has been cleared from leaves, weeds, &c., let the whole ground receive a deep hoeing with the Dutch hoe, then give a good soaking of clean water, afterwards apply a dose of liquid manure, which will invigorate the plants.

CARROTS.—Make a good sowing of Scarlet Horn. If the ground is fairly rich and enjoys the full benefit of the sun but yet well sheltered, sweet tender roots may be had long after the ordinary crop has been lifted and stored. These Carrots, freshly drawn from the soil, have a delicacy of flavour unknown to stored roots. Spread wood ashes over the ground before sowing. This will be found beneficial, as will also the spreading over the crop of ashes or leaf-soil at the approach of hard frost.

J. JEFFREY.

The Gardens, St. Mary's Isle, Kirkcubright.

INDOOR GARDEN.

BULBS.—Pot up the bulbs as soon as received. Six-inch pots will be found the most suitable size for Hyacinths and Narcissi, placing five or six in a pot. Duc Van Thol Tulips are usually grown four or five in a 5-inch pot. In market nurseries and some private gardens the bulbs are often grown fairly close in shallow boxes. If to be used for the decoration of the conservatory, the bulbs are potted up when coming into flower. Early forced bulbs often flower somewhat irregularly, but by this method those of equal development can be potted up together. For Roman Hyacinths and Tulips this is an excellent method. Except for cut flowers I would not recommend growing Narcissus in this way. The removal damages the roots, the flowers, consequently, do not last as long as when grown wholly in pots. For compost use ordinary potting soil with a little well-decayed manure added. When potted stand out of doors, and give them a good watering. Allow the pots to drain before covering with 3 inches or 4 inches of ashes. Use only ashes which have been exposed to rain and air for several months. Inspect in six or eight weeks, removing some of the best rooted into a cool house or frame.

HIPPEASTRUMS.—Plenty of ventilation can be put on the house where these are grown, giving them all the sunlight possible. Less water will be necessary, for the plants which flowered first have completed their growth. Keep the seedlings growing, as it is not advisable to dry them off the first year. Pot on if required. We prefer to plant out the bulbs in a bed made up in the same house or one of similar temperature. The seeds sown this year are just germinating.

TAKING CUTTINGS.—Select sufficient Fuchsias which have been flowering for some time and cut back the growths to obtain cuttings for insertion the beginning of September. Put in cuttings of *Arctotis aureola*, *A. aspera*, and *A. arborens* during this month to obtain established plants for keeping through the winter. Insert in sandy soil and place in a hand-light or under a bell-glass, preferably in a north frame. A few cuttings of the showy and regal *Pelargoniums* can be found on the plants which have finished flowering. Cut back several plants of *Petunia* Mrs. J. Jeffries to induce the production of cuttings. Any growths that can be spared from good double *Begonias* and the very choicest singles are worth putting in as cuttings. Insert either singly in small pots or mix a little sand with the fibre in the propagating frame and dibble the cuttings in this. If taken off with a heel or cut at a node nice little bulbs should be formed this year, which will start away readily in spring.

GENERAL REMARKS.—Save a few seeds of *Clerodendron fallax*. Leave one or two female flowers for fertilisation on the *Begonias*. Keep the creepers judiciously thinned on the roofs of the houses to allow the plants underneath as much light as possible and also to ripen the remaining growths more thoroughly. Place *Epiphyllums* in a cooler house after growth is complete; gradually reduce the amount of shading to ripen the shoots for flowering. The growths of *Marquerites* which have been flowering for some time should be shortened, placing the plants outside for a time.

Royal Botanic Gardens, Kew.

A. OSBORN.

FRUIT GARDEN.

STRAWBERRY PLANTING.—The very hot weather, together with the absence of rain, experienced in this district during the latter part of June and July considerably shortened the Strawberry season. Such varieties as A. F. Barron, Waterloo, and Latest of All were all over before the end of July. Waterloo has been excellent, and evidently enjoys a warm season. The finest fruits have been gathered from one year old plants, which were layered and planted out as early as possible. A. F. Barron and Latest of All are very reliable sorts for late work. Where new plantations are being considered, it is well to have the ground ready as soon as possible. Break it up to the depth of 2 feet, using plenty of well-seasoned manure both at the bottom of the trench and near the surface. Make sure the ground is well trodden before putting out the plants. If space will permit, a young plantation should be made every year for the earliest

crops. Here we make use of a long, narrow border having a southern aspect for the early crop. This is planted annually with Laxton's Noble, Royal Sovereign, and La Grosse Sucrée, and furnishes a supply of splendid fruit till the main crops come in. Often these are ripe ten or twelve days before those in the open. Royal Sovereign has, I think, yet to be beaten for main crop, but it should be replanted after the second year. It should be given more space than most varieties; 2½ feet between the rows and 2 feet from plant to plant is none too much if space will allow. See that the young plants are saturated with water before being planted. It is of great importance to firmly place them in the ground. Sprinkle the plants every evening with a rose can till they have become established, and keep them free of runners. Should mildew attack the plants, the following simple remedy is usually very effective. Place 5lb. each of sulphur and slaked lime with five gallons of water, and boil for half an hour. Draw off the liquid when cool, and place in jars. Half a pint of this mixture to two gallons of water will be strong enough to check this pest. It should be syringed on the plants late in the afternoon, the operation being repeated once a week. This mixture is also very distasteful to red spider.

CHERRIES IN POTS.—Trees which require repotting may be dealt with at once. Except in the case of young, vigorous trees they may be placed in the same sized pot; consequently the balls must be considerably reduced to effect this object. Pot firmly in a compost of good fibrous loam, with a good sprinkling of old mortar rubble, wood ashes, and crushed bones. Place the trees in a sheltered position for a week or two, and syringe them twice daily. Afterwards put them out in the open, so that the wood may get properly ripened. E. HARRISS.

Fruit Department, Royal Gardens, Windsor.

THE KITCHEN GARDEN.

LATE CARROTS FOR WINTER AND SPRING.

THIS vegetable is very useful, and always in demand. As it frequently fails, it is well to so vary the culture that a good supply may be maintained. The usual plan is to sow early in the year and lift late in the autumn. By this means a large root is secured, and probably with less trouble than the plan I would advise. It was owing to our spring Carrots failing that we adopted other means to get a full supply. I would strongly urge those who fail to get good roots by ordinary culture to grow smaller ones. We sow Carrots five or six times during the year if frame culture is included. The spring supply is obtained from frames, as all vegetable growers know. The seed is some time germinating when sown in the open early in the year, but with frame culture there is a great gain as regards time over those sown in the open ground.

It may not be necessary in many gardens to make as many sowings as I have stated, but our demand is great all the year round, and with only a limited space at command three sowings should suffice. All may not have glass to spare for an early crop, but even then with a little management good table Carrots may be had the whole year. We place much reliance on our July and early August sowings. Here it will be seen my note is applicable at this season. I have stated that this root fails at times, and I would advise later sowings. It may be thought that the roots will be too small to store, but no storage is needed. The Carrot is quite hardy, and by wintering in the soil and lifting as required the flavour is much improved. I admit all soils are not suitable. A stiff clay would be difficult, but it will repay the grower to make the soil suitable. This can be done by using burnt refuse, old mortar, road sand, anything that lightens, and last, and best of all, a goodly portion of wood ashes. The worst evils the grower has to contend with in old garden soils are wireworms and other pests which cause the roots to go wrong, and as they are small and sweet they soon find them out. To prevent their ravages we lime freely, and for wireworm use gas lime, also soot and plenty of wood ashes or burnt refuse. This done, the roots are clean and quite large enough for the table if the land is not poor.

The crop sown now will continue to grow well into November, and these roots will be available

till April or May, a six months' supply, and of the best quality. An intermediate variety or Scarlet Horn should be grown. We sow Early Gem in the spring, Early Nantes and Model now, using the Nantes first. The earliest sowing should be made on a warm border in February, and a later sowing in April or May on well-prepared ground in the open. These will provide young roots for the season, and the supply for the period that is vacant after the late sowing is over. We make a sowing in frames in December or January, and three between that date and the present July sowing, but, as I previously stated, so much depends upon the requirements of the household. It may be thought that winter and spring Carrots would winter badly in the open ground, but this is not so if the land is clean. Early in April, however, it is well to lift and place in a shady spot, as the roots toughen when new growth begins.

In severe weather it is an easy matter to cover a small quantity with dry straw or Bracken for present supplies. When sowing at this date, if the soil is very dry, it may be advisable to moisten the drills after sowing. The most important point is to have clean land, and well enriched with food or prepared soil. When this is done there is a full crop at a season of the year when good vegetables are appreciated. G. WYTHES.

AN EARLY COS LETTUCE—JEFFRIES' LITTLE QUEEN.

EARLY in the season the Messrs. Jeffries of Cirencester sent me for trial a distinct Cos Lettuce, as they had read one of my notes in THE GARDEN, in which I said that, unfortunately, we had few very early good Cos varieties, and they sent Little Queen for trial. That sent is quite as early as any Cabbage variety and of as good quality. Little Queen may be termed a good companion to Golden Queen, which is one of the best early Cabbage Lettuces grown, and, sown in a frame in January or February, will be ready at the same time. This is a great gain, as many prefer a Cos Lettuce, and the one named is a delicious little firm-hearted variety. Owing to its quick growth it is very tender, crisp, and sweet. It shows that in the provinces there are excellent types of vegetables and salads that should be more widely known. I am much indebted to the senders, and shall not omit Little Queen for late autumn sowing. With us Lettuce is always in demand, and a good variety like Little Queen that helps one between February and April is a great gain. G. WYTHES.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR of THE GARDEN, 20, Tavistock Street, Covent Garden, W.C. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

Legal Points.—We are prepared to answer questions of law which have anything to do with the subject of gardening and forestry. The questions should be as clear and explicit as possible, so that there can be no doubt as to the point of the question. Answers will be found in a separate column headed "Legal Points."

MANURING ONIONS (R.).—We have looked in vain for the advice you say you followed from these pages on manuring Onions with soot and salt, and if it were given we feel sure the quantities

you gave were not advised in such weather as we have had. The food should have been given in showery weather. The sun would do the mischief quite as much as the soot and salt. Both of these applied now would be harmful, whereas in the winter or spring they would be beneficial as a dressing.

PEACH LEAVES FALLING (W. Watts).—The leaves of the Peach tree are attacked by red spider, and we should also say from their appearance that the soil is poor and has been allowed to become dry. The best thing you can now do is to mulch the ground surface round about the tree with manure, watering the tree thoroughly before doing so. Then take care that it is well and sufficiently watered afterwards throughout the summer. Syringe the trees well every evening after a hot day, or if you use a garden hose on them so much the better. If, however, the fruits are ripening you cannot well do the latter. You still might syringe the leaves carefully, and especially the under sides of them. Red spider flourishes in a dry atmosphere; therefore you should keep the roots and leaves as moist as you can. To get rid of the insect pests, syringe the trees with the following solution: To half a pound of flowers of sulphur and 1 lb. of fresh lime boiled in two gallons of water add three-quarters of a pound of soft soap, and, when all is well mixed, add two gallons more water. If, however, your fruits are on the point of ripening, you cannot use this mixture until they are gathered, or you will probably disfigure them. If your fruits are gathered, then you ought to be able to get the trees into a healthy condition by air and by keeping them well syringed in the early morning and evening and by keeping the soil moist about the roots. In the autumn we should advise you to remove several inches of the surface soil, and replace with fresh and rich material. It is all-important to keep red spider down early in the year by keeping a moist atmosphere, and syringing well when it first makes its appearance. It is important, too, to give very careful attention to Peach trees after the fruits are gathered, for then the wood for next year's fruiting is being built up and matured. Keep them well supplied with water and mulched until the autumn, and admit all the air you possibly can. Take off the roof-lights of the house if possible.

PEAR TREE UNSATISFACTORY (A Constant Reader).—Yes, it is certainly an unusual thing to have a Pear tree in flower at the present time, although such cases have come to our notice before. Without knowing more of the circumstances it is difficult to give the cause of your Pear tree losing its leaves and flowers in the spring. It might have been caused by a sharp late frost or by cold east winds, or perhaps the tree suffered from dryness at the root at that critical time. However that may be, we are glad to know that the tree is still alive. Your best plan now will be to take off all the flowers and try and encourage the tree to make as good a growth as possible. Even if you allowed the flowers to remain and they formed fruits, these would never be of any value. They probably would not develop, and in any case could not ripen. Take care that the tree does not suffer from want of water at the root; it is most important that the soil should be kept moist. Either keep the surface soil loose by means of the Dutch hoe or else mulch around the tree with manure, preferably the latter. Encourage the tree to grow by removing all weak and useless shoots, and syringe it in the evening after a hot day. If you remove all the flowers and carry out the cultural items above recommended, we think you will get the tree into good health again. You might also shade the tree during the hottest part of the day. Something may be wrong with the roots. In the autumn you had better dig a trench around the tree some 5 feet from the stem, and work away the soil from towards the stem with a fork until you come to good fibrous roots.

Cut back any thick fibreless ones that are going down into the subsoil. Remove the old soil that you fork away and replace with good fresh loamy soil enriched with bones or bone-meal. Remove the surface soil also several inches deep and replace with fresh material.

PREPARING A HERBACEOUS BORDER (B. T. F.) In the preparation of a border where clayey soil forms the staple the work of digging and manuring should be pushed forward in comparatively dry weather. For example, if the border is now at liberty we would suggest that the work be taken in hand some time during September. Trenching the whole border to a depth of 2 feet will be necessary, and as the work proceeds abundant supplies of sand or road grit, burnt earth, and the ashes from the garden-refuse fire should be added to the upper spit of soil, or as the work of trenching proceeds ample supplies of old mushroom-bed manure or peat moss litter manure could be added, burying it at least 9 inches from the surface. Cow manure should not be used in this class of soil—it is better for light land. If, after the trenching and manuring of the entire border is completed you could add to the surface a 4-inch deep covering of this mixture, to be forked into the upper soil prior to planting, you would do a lot of good, especially in preventing the soil from cracking in dry weather, an item responsible for a very large number of failures or losses in all heavy soils. As you have so much time before you the thing is worth doing well, and if so done will last for years. If you can do as we suggest, basic slag would not be necessary, and if you cannot do exactly what we suggest so far as the mixture for the surface is concerned, we then suggest as the next best thing that a good mulching of peat moss litter manure be given to the surface in the early autumn, to be forked in before planting. In this case a good dressing of soot and lime may be first given. It is important that this class of soil be not much trodden when it is moist or wet. Coal ashes we only resort to as a last resource. The other items we have mentioned not only tend to keep the soil open and porous, but materially aid fertility.

MELON PLANTS DYING OFF (H. H. S.).—Your Melon plants have been undoubtedly attacked by canker, the most destructive of diseases the Melon grower has to contend with, and we can thoroughly sympathise with you. We suppose it is too late for you to do anything to save the plants until the crop is gathered. To judge by the size of the stem rent the plants are old. We know of no real cure once the stem of the plant is attacked by canker. We can only tell you what to avoid doing so as to endeavour to keep your plants free from canker in the future. The great point is to try and keep the base of the stem (the portion usually attacked) hard and strong. All growths which push from the axils of the leaves on the stem ought to be removed when the plants are young, for if allowed to remain until well grown they prevent a free circulation of air around the stem, thus causing the latter to become soft and flabby. When watering the bed great care is necessary to make sure that the stems of the plants remain always perfectly dry. This is a most important point. No water should fall within an inch of the stem. When the shoots are allowed to grow and develop before being stopped, or if a lot of foliage is removed at once, canker is promoted. The shoots often die back to the stem instead of healing. An atmosphere continually saturated with moisture will also weaken the plants, thus rendering them more liable to canker. A good thing to use is Portland cement well rubbed upon the affected parts. It arrests decay and causes the stem to become hard and dry again. The lives of plants that would otherwise collapse may be prolonged by this method sufficiently to ripen the crop of fruits. When the fruits have been gathered, burn every bit of stem and leaf, clear out all the old soil and manure, and when the house is empty burn flowers of sulphur. This will kill any living

germs that may be in the house, and ensure a clean start with fresh plants. Needless to say, you must raise fresh plants in another house. Place several flower-pots in the house, half fill them with hot coke, and sprinkle a good handful of sulphur upon each. The fumes will kill all insect or fungus life. Make sure that the house is properly closed, and do not, of course, stay inside after putting the sulphur on the coke.

DRYING FRUITS (J. P.).—You would do well to write to a well-known or large grower who makes a speciality of dried fruits. This work needs care and proper appliances. You do not name the fruit, but whatever kind you will require a fruit dryer, and you should get full instructions, or, if possible, see the work done. In this country this work is in its infancy, but it is well worth more attention.

PLANTS FOR COLD HOUSE (W. S.).—The choice of plants that may be flowered in a cool house in winter and early spring is very limited, for little more than bulbs are available. Roman Hyacinths, if potted in September, will flower in about a couple of months, and not only are they very pretty, but as more than one spike is produced from a single bulb, a succession is maintained for some time. Use from three to five bulbs in a 5-inch pot. Roman Hyacinths may be potted and placed in the house at once. Various hardy bulbs that flower naturally in early spring when in the open ground will, with protection, anticipate their usual season of blooming, and are then much appreciated. Among them may be mentioned Narcissi of various kinds, Tulips in variety, particularly those belonging to the Duc Van Thol section, Crocus, Scilla sibirica, and others. These should all be potted in October, placed out of doors, given a good watering, and then covered 2 inches or 3 inches deep in coal ashes or cocoanut refuse. This greatly encourages the formation of roots, which in a month should nearly fill the pots, and when this happens all the covering material should be cleared off and the pots taken into the greenhouse, where, if well supplied with water, they will gradually develop. Hardy shrubs, too, may be treated in the same way, particularly hardy Azaleas, Lilacs, Deutzias, Forsythia suspensa, and Prunus sinensis, all of which flower readily enough in pots. They will all bloom more or less earlier than in the open ground. Such a structure is not suitable for winter-flowering greenhouse plants, that is to say, those that need the protection of a greenhouse in order to enable them to pass the winter, as to induce them to flower in the depth of the season a little more heat than usual is necessary. These remarks apply, among other subjects, to the Statice concerning which you enquire.

DISEASED PEAS (J. H. Grantham).—We have, unfortunately, seen this season many similar cases of Peas of which the haulm has gone wrong, and which, at the time you wrote, there was no means of saving, as the haulm was so much injured. The first injury—and there are two distinct ones—was caused by frost. This occurred when the plants were in a tender state late in May, and if you examine the haulm you will see the injury just above the soil. This did not show for a time, but later on, when there was a greater demand on the roots, the injured portion felt the strain, and the healthy growth gave way, and then thrips badly attacked the plants. The latter injury could have been warded off, or at least largely prevented, by thorough washings or syringing with a good insecticide, such as Quassia or Bordeaux mixture. Thrips often attack when the season is very hot after a cold spell, and this season this is very common, especially in light soils or on stony land. You do not give us any details as regards your soil or the culture, or if you sowed very thickly. This latter is an evil, and often causes mischief in such seasons as this.

FIGS SHRIVELLING (*Ficus*).—The cause of the Figs shrivelling is no doubt imperfect fertilisation—scarcely any seeds have been formed. This is a common complaint, especially when the trees are bearing heavy crops. The best thing to do to guard against the evil is to thin the fruit in good time, and also to thin out weak growth during the summer in order to give the shoots which will bear fruit next year the advantage of more light and air whilst growing, and preparing them to bear surer and better crops the following year. A fruitful cause of the non-setting of Figs is maintaining too high a temperature and too close an atmosphere when the fruit is in bloom. This period causes a great strain on the energies of the tree in forming seeds. The time when this takes place may be easily ascertained by observing the non-swelling of the fruit a fortnight or three weeks after it has attained the size of a small Walnut. The temperature should be reduced by at least 8° night and day during this time, and again increased as soon as fertilisation has taken place. The specimens are too imperfect for naming.

CHRYSANTHEMUMS FAILING (*J. M. P. M.*).—We have very carefully examined the plant you sent to us to know the reason for its failing, but cannot come to any very definite conclusion. When the plant reached us the foliage was absolutely brown. We have never seen anything of the kind before, and have never heard of plants getting into such a condition within a period of twenty-four hours. It is possible there may have been carelessness on the part of someone in your employ. They may have watered the plants with weed killer or a very strong dose of some chemical manure. Do you keep either of these on your premises, and do you think they may have been used in mistake? Either one or the other may have been left in a water-can overnight, and the character of the contents forgotten, and when the cans were used on a subsequent occasion the trouble may have been caused thereby. It is possible that the dressing of manure applied to the border in which the Chrysanthemums are planted may have contained some foreign substance injurious to plants.

IRISES (*L. J. M.*).—If you really desire to engage in the cultivation of the whole of the Iris family, and to thereby ensure flowering examples over a period as prolonged as possible, you are certainly possessed of an idea meriting all praise. Nothing that we know of—and, indeed, no solitary genus of hardy plants—has so great a number of interesting species that embrace so extended a period of flowering. At least, for some five or six months of the year it is possible to have the Iris represented in the garden. In embracing so extensive a family, however, it will at once be seen that no single position nor one class of soil is likely to give satisfaction, and, unless you have some idea of the large number of species and varieties necessary to render an Iris garden more or less complete, we think it advisable—as there is ample time to make arrangements—to choose some of the more prominent groups. For example, there are the winter Irises in *I. stylosa*, *I. alata*, and others, to be soon followed by the many bulbous Irises, *I. reticulata* and the like. These require a warm position in very sandy soil. Closely following these, and often in the company of some, are the members of the orchoides group, which require deep and rather moist loam in a sheltered spot. In April *Iris pumila*, *I. obliensis*, and others of quite easy culture appear, and occasional species, such as the Tangiers Iris, quite late in the same month. This kind, however, requires special treatment. The next important section contains the beautiful kinds from the Holy Land and Turkestan, known as the Cushion and Regelia groups, and bearing them company are the hybrid and cross-bred forms introduced as recently as 1904, and which are the result of crossing and intercrossing the best of the *Oucocyclus* Irises, *i.e.*, Cushion Irises, with *I. Korolkowi* of the Regelia group. This

new series, known as Regelio-cyclus Iris, and the members of the parent groups call for special treatment generally. Then comes the whole of the Flag Irises, which with their numerous following make a rare feast of beautiful forms from late in April or early May onwards to June. These are chiefly of easy culture throughout, and so accommodating that they may be grown in any good or fairly well-enriched garden soil, save in dense shade. With these given room, Daffodils and Lilies may be associated with advantage. In close touch with the Flag Irises are the bulbous Irises, *i.e.*, the Spanish and English, while the last great group to flower—and the most sumptuous, perhaps, by reason of their huge spreading petals—are the water-loving Irises of Japan. For these, deep and rich soils with moisture or, in some instances, water is the best. This group, with *I. sibirica* varieties, all prefer moist soils, and other moisture-loving things could be associated with them. These are some of the main groups, and, of course, there are a great many beautiful and interesting species, most of which could be planted permanently. Some kinds require lifting each year, and so forth. Having given you this general idea, we should be pleased to give you more definite information upon any of the groups named. If, however, your real desire is for an Iris garden to embrace, as far as possible, the best of this beautiful genus, we think the advice of a specialist would not only be a great gain, but prevent much disappointment and loss. Meanwhile, we shall be pleased to give you any assistance we can.

TOMATO FRUIT DISEASED (*Banksian*).—Our correspondent does not say whether the foliage of his Tomato plants is affected with disease as well as the fruit. If it is we should say that the disease is the Potato fungus. This form of fungus and ordinary mildew are the only maladies which are known to affect the Tomato to any extent; but the foliage and stems are always the first to suffer in these cases. If the disease is what we surmise the best remedy to apply is to spray the plants with Bordeaux mixture. This can be had, ready mixed in the proper proportions, from the seedman. The spraying, to be effective, should be thorough, every leaf under and over, as well as stems, must be sprayed. Two or three dressings, at intervals of ten days, should stop the further progress of the malady, but if the plants are badly affected then the best thing to do will be to pull them up and burn them. There is yet time to secure a good crop before winter by sowing seed at once. The compost in which they are grown consists, we think, of too much manure and leaf-mould; the better compost would have been three parts loam, one part spent Mushroom manure, and a liberal sprinkling of old mortar rubble or lime. Artificial manure is best applied in liquid form when the plants are bearing heavy crops.

VINES UNSATISFACTORY (*T. Gibb*).—The varieties, we think, are Black Hamburg, Foster's Seedling, and either the Tokay or Muscat of Alexandria. We can tell you definitely, when the fruit is ripe. For the present nothing can be done to the Vine border—only that you must do your best to supply it with adequate moisture whilst the weather is warm and dry. As regards the wood and foliage, keep these clean and healthy, and see that the shoots do not become overcrowded by lateral growth. These must be kept closely stopped, so that the main shoots which will produce Grapes next year may have all the benefit possible from light, heat, and air. The cause of the border being so high no doubt is the annual or occasional top-dressings it has received for many years without any of the old surface soil being taken away to make room for them. The Vines being too old, lifting and replanting are out of the question, but there is no doubt they can be brought round to a satisfactory and fruitful condition again by a little

generous and careful treatment. The first thing we should do in the autumn, say, the middle of October, would be to dig a trench the whole length of the vinery close to the back wall (say, 8 feet or 10 feet from the stem of the Vines) and is deep as the border goes (usually about 3 feet). This trench should be at least 2 feet or 3 feet wide. In cutting it no doubt some important roots will be found. The Vines being old, the largest may be left intact, or a severe check may be received. The smaller roots may all be cut back. The next thing to do will be to fork away at least 7 inches of the surface soil of the border. This may necessitate the sacrificing of a good many surface roots. This does not matter, as the Vines will form others in abundance the following season. The next thing to do will be to fill up the trench at the base of the border with the following compost: To one cartload of loam broken up into lumps half the size of a brick add two barrowloads of old building material, such as broken bricks and mortar rubble, half a bag of quarter-inch bones, and half a barrowload of quick lime. This finished the border should be top-dressed with the same compost (only it must be finer) and a barrowload of fresh horse manure should be added to the cartload for top-dressing purposes. This will reduce the height of the border considerably, and if the old soil is taken off a good depth always before applying a new top-dressing, the border will soon be reduced to its normal level. If these suggestions are carefully carried out and the Vines not started too early next year (say, the end of March), you will find that the old Vines will soon be in good health and bearing again. The stems of the Vine having filled the space between the pipes and the wall, the only course open is to shift the pipes 6 inches further from the wall. This may easily be done by shortening the end pipes so much and carefully drawing the pipes away from the stems, connecting the end pipes again by means of what is termed a slip collar. In the absence of a horticultural builder being available, a garden handy man can easily do this.

LILIUM CANDIDUM DISEASED (*Downside*).—You have been greatly favoured indeed to have grown so many fine clumps all these years, and only so recently experienced the disease which has been so ruinous and widespread. It is by no means peculiar for the disease to attack long-established clumps in the way you state. The disease will most probably remain and occur in a more or less virulent form each year. The attack may be better prevented or modified than cured. Early spraying with Bordeaux mixture may have the desired effect, and is worth repeating. This should be done as soon as the flower-spike appears, and be repeated in ten days or so. You will do well to remove the diseased clumps, giving them a fresh position in the garden, preferably where the Lily has not been grown for some time. Burn all the diseased stems and leaves, and, if possible, an inch deep of the soil round about the clumps. Two remedies only have been suggested. The remedies are (1) placing the bulbs in a bag with flowers of sulphur, *i.e.*, powdered brimstone, and so shaking them that the sulphur acts upon any present germs, afterwards freeing the bulbs of the sulphur and planting them in fresh soil. The second remedy is to dig up the bulbs, place them on a hard gravel walk, fully exposed, and give them a sun-baking for a month, after which plant them in fresh soil and in a fresh position. To these two remedies we may suggest a third, which is to give the bulbs a bath in Jeyes' Fluid in proportion of one tablespoonful to a quart of rain water. Such remedies as these, however, are but partial, and as the disease is largely due to atmospheric or climatic conditions no absolute cure can be expected. It is highly probable that a change of soil will do much good. Replant as early as possible after the flowering. Do not use any manure in the soil, and do not bury the bulbs more than 3 inches below the surface.

VARIATION IN EVERLASTING PEA (*J. F. B.*).—There is nothing unusual in the variation of the Pea you submit; indeed, the tendency to sport or revert to the original is quite frequent, and, as a rule, not an advance upon existing kinds.

FOWL MANURE IN THE GARDEN (*C. H.*).—This is a very valuable fertiliser, but must be used cautiously. If allowed to dry in the air its value is about double that of fresh droppings. A good plan is to store it after drying in some boxes in a dry shed and apply in early spring at the rate of about 2lb. per square yard, hosing it into the soil or lightly forking it in.—E.

RHODODENDRONS (*D. A. Stewart*).—These do not require any manure, but as the ground is hard and stony they are hardly likely to succeed, as Rhododendrons need a fair or even a liberal amount of moisture. Such being the case it would have been a great advantage had you given them a good mulching, say, 5 inches or 6 inches deep of leaf-mould, or even decaying leaves, as this would tend to keep the soil moist, and prevent harsh winds and hot sun from drying it. This top-dressing might with advantage have been put on as soon as the Rhododendrons were planted, or not later than early in the spring, but it is now almost too late to be of value this year. We should advise you to do it before another winter, and your plants will doubtless benefit.

ROSE FOLIAGE WITH RED RUST (*E. M. D.*).—The rusty appearance of the enclosed foliage is due to red rust, which is very common. If our Roses were free in our gardens they are always liable to take it from the wild Roses in the hedgerows. The best known remedy is Bordeaux mixture applied in early spring, saturating the stems with it and also the soil. Any good horticultural sundriesman would supply you with the mixture. A dressing now would be advisable, and again in spring as stated. We should advise you to grow more of the glorious Tea and Hybrid Tea Roses, which are less prone to the fungus.

WEEDY LAWN, &c. (*C. M. C.*).—Your best course in helping to get rid of the weed on your lawn, sample of which is sent, and which is one of the lesser Lamiums, is to scratch over each patch of it well and hard with a sharp iron-toothed rake, working the rake backward and forward. That should help to remove a great quantity of it. Then get sulphate of ammonia, crush it very fine, and spread it over the patches. That should burn the remainder, and when it washes in should help to induce the surrounding grass to grow over the bare patches. In the winter put fine soil on the patches, and in April early sow lawn grass seed on them. Only persistent treatment will keep the weeds in check. As to the sudden dying of branches on certain stone fruit trees, it seems practically impossible yet to find a definite cause. Many persons attribute it to the stocks on which the trees are worked being unsuitable. It commonly happens that when branches die some evidences of canker or gumming are seen on the stems.

BLACK CURRANTS DISEASED (*Benton*).—The excrescence you speak of is not American blight, but is caused by the Black Currant mite, a most troublesome pest that has caused thousands of plants to be sacrificed. We can only advise you to pull up the plants, for unless there are merely one or two shoots affected pruning the plants would be of little use. You should burn the bushes and start with young clean stock. As regards the Pansies and Carnations failing, your best plan will be to apply gas lime next winter, and at the same time throw up the ground in ridges. Let it remain so until spring to enable air and frost to purify it, then plant a fresh stock that you know to be healthy. We should say the death of some of your Rose trees is rather the fault of careless preparation of the soil when planting, or may be you suffered, as many other individuals did, from spring frosts. Do not apply any of the remedies you suggest. These strong chemicals are more likely to kill plants rather

than cure them. You cannot improve on good sweet loam and farmyard manure, and give it of a good depth—say, 3 feet. Replant the bushes this autumn, and tread soil firmly about the roots, both when planting and about ten days afterwards.—E.

MAKING A POND (*A. Roberts*).—Clay is not absolutely essential in these matters, but in shifting sandy bottoms is very desirable, and generally proof against cracking. Concrete with cement surfacing, however, may be made strong enough for any purpose provided the bottom below the concrete bed is not swept or inundated by water in winter time. In such circumstances the strongest concrete, by virtue of its own dead weight and settling down, may crack. Hence the need of a body of adhesive soil, as, e.g., tempered clay, which remains uninfluenced by the water. Of these matters you will be the better judge. Provision should be made for at least a 9-inch bottom of concrete, a good proportion being three of clean gravel to one of cement. The surfacing coat should consist of clean, well-washed sand or river grit in equal proportions, and 1 inch in thickness for the bottom and lower sides, modifying the thickness as the surface or upper portion is reached. This should make a perfectly water-tight and reliable basin. If a finer or more finished surface is desired, finish the whole off with a thin skimming of neat cement.

NAMES OF PLANTS.—*Flora*.—1, variety of *Begonia* worthiana; 2, *Echeveria secunda* variegata.—*G. Ros-trom*.—1, *Spiraea Bumalda*; 2, cannot find this; 3, *Lychnis coronaria*; 4, *Galega officinalis* alba; 5, please send flowers or some particulars of the plant; 6, *Strobilanthes dyerianus*.—*Baller*.—*Rubus laciniatus*.—*M. Drane*.—*Polygonum Convulvulus*.—*Mrs. Hood*.—*Litum perenne*.—*J. Reidpath*.—*Alchemilla vulgaris* (common Lady's Mantle).—*A. L. F.*.—*Origanum Maru*.—*T. A.*.—*Aerides odoratum*.—*L. C. G.*.—*Japanese Iris* (*I. levisata*).—*C. Prentis*.—*Asclepias incarnata*. All the members of this genus are remarkable for the silky appendages to the seeds by means of which they are often carried some distance. It should ripen seed in England.—*C. Casler*.—The flower you send is a white form of Sutton's Delphinium Queen of the Blues; it is not unusual. There is also a pale blue variety offered under the name of Dwarf Porcelain Blue.

TRADE NOTES.

TURNIP SEED CASE.—IMPORTANT JUDGMENT.

A CASE of importance to horticulturists was tried on June 15, at the Norwich Assizes, by Mr. Justice Bucknill, who gave judgment in the High Court of King's Bench in London on the 6th ult.

In giving judgment, Mr. Justice Bucknill said, *inter alia*: "This is an action to recover damages for breach of contract on the sale of certain seeds called Turnip seeds, sold by the defendants, Messrs. Hart and Son, seed merchants, to the plaintiff, who is a farmer in Norfolk. The claim by the plaintiff was that there had been a purchase by him of Turnip seed sold under the denomination of 'Best of All Swede, Purple Top,' and that instead of Swedes of purple top coming up as a crop, something came up which certainly were not bulbous Swede plants."

"The defence was that the seed which was sold was the seed which was described as 'Best of All Swede, Purple Top.' Forty pounds in weight of it was the amount which was sold to the plaintiff, together with other seeds, in the month of March, last year. The defence in effect was that what was sold was this particular seed by description, and that if it did not come up as Turnips, Purple Top, the defendants were not responsible, because on account of an exemption clause in the contract, which must be taken as part of the contract. By the exemption clause it appeared that they would not either guarantee or warrant the description or the productiveness or any other matter in connexion with the seed, and that if the purchaser did not choose to take the seed on those terms he was to leave it alone and return it to them."

A verdict was given for the defendants, with costs.

[From the Judge's summing up and decision it will be seen that we supplied seed according to contract, that it was true to kind, that in every other case but this it produced good crops of genuine Swedes, and that we were not in the slightest degree responsible for what the plaintiff grew. The result of the trial is satisfactory to us, as it proved that we delivered what was bought. It would be a serious thing if seed merchants were liable for what the crop turned out to be or not to be, even though they had honourably and straightforwardly, as in this case, fulfilled their contract. While seed merchants should use every endeavour to supply the purest and best strains of seed possible, as is our invariable practice, they cannot be made responsible in any way for crops growing from them, as results depend not only upon seed sown but a hundred influences which they cannot possibly control.—HART AND SON.]

LEGAL POINTS.

LANDLORD AND TENANT (*Dot*).—Unless you have agreed in writing with your landlord that the land shall be treated as a market garden, you are not entitled to compensation for the unused vegetables. The Allotments and Cottage Gardens (Compensation for Crops) Act, 1887—(see reply to "Cottager" in our issue of June 17)—does not apply to vegetables. If the land is cultivated as a market garden, you would appear to be entitled to compensation in respect of unused vegetables planted after the receipt of notice to quit. The Market Gardeners' Compensation Act only applies, however, to Rhubarb, Asparagus, and other vegetable crops which continue productive for two or more years. The compensation should represent the value of the crop to an incoming tenant.

FEROCIOUS DOG (*Country Postman*).—Where a person claims damages by reason of having been bitten by a dog, he must prove that the dog had to the defendant's knowledge bitten or attempted to bite a human being under such circumstances as would not provoke a dog of good temper. Knowledge by a servant who has charge of a dog of its mischievous propensities is equivalent to the knowledge of the master. A person has a right to keep a fierce dog to protect his property, but he must not place it in the open approaches to his house so as to injure persons lawfully coming there. If a ferocious dog is not kept under proper control, a magistrate or justice of the peace may order it to be destroyed. If a person is attacked by a ferocious dog he may kill it. It is a criminal offence to suffer to be at large any unmuzzled ferocious dog, or to set on a dog to attack or worry any person or animal. It is also a criminal offence to permit any dog to go at large having reasonable ground for believing it to be in a rabid state. Penalty, not exceeding forty shillings, or imprisonment not exceeding fourteen days.

SOCIETIES.

DUNFERMLINE ROSE SHOW.

AMONG the minor operations of the Carnegie Dunfermline Trust is the promotion and support of flower shows, and last year a midsummer show was instituted with a highly successful result, no fewer than 410 entries being received. This year upwards of £200 were offered in prize money, and the entries increased to 508. The show was held in the Pittencrieff Park, Dunfermline, on the 20th and 21st ult., and was probably the finest ever held at this season in Scotland. It was the primary intention of the promoters that the show should consist mainly of Roses, Pansies, Sweet Peas, and herbaceous flowers, and the liberal prizes in the various classes drew out some of the best growers in Scotland and the sister kingdoms. All through the show was a very fine one, Roses were magnificent, and an increase in the prize money offered for hardy flowers brought out many superb flowers. Sweet Peas were in great numbers, and generally remarkably fine. A number of non-competitive exhibits were shown, among these being a beautiful exhibit from Mr. Andrew Carnegie's gardens at Skibo Castle. With such an extensive show it is only possible to mention a few of the leading prize winners, but reference must be made to the award of the Carnegie Championship for seventy-two Rose blooms to Messrs. R. Harkness and Co., Hitchin, Herts, for a remarkably fine exhibit of the highest excellence, the blooms being characterised by great size, symmetry, and purity of colour.

Other leading prize winners with Roses were: Messrs. Alex. Dickson and Sons, Newtownards; Mr. Hugh Dickson, Belfast; Messrs. D. and W. Croll, Dundee; Messrs. J. Simpson and Sons, Dundee; Messrs. W. and R. Ferguson, Dunfermline; Messrs. James Cocker and Sons, Aberdeen; and Messrs. Dicksons and Co., Edinburgh. Amateurs exhibited well.

The gold medals of the National Rose Society were awarded as follows: Nurserymen.—Best Hybrid Perpetual or Hybrid Tea in show, Earl of Dufferin, from Messrs. R. Harkness and Co.; best Tea or Noisette, Souvenir de Pierre Notting, from Messrs. J. Simpson and Sons. In the amateurs' and gardeners' classes Mr. W. M. Melville secured the National Rose Society's gold medal for his Hybrid Tea Killarney, and the Rev. J. H. Pemberton that for the Tea Rose Maman Cochet.

Messrs. James Cocker and Sons were the most successful exhibitors in the open classes for herbaceous plants, and the prize winners for Pansies included such well-known cultivators as Mr. John Smellie, Mr. James Johnston,

Mr. C. W. Fraser, and Mr. S. Cowan. Sweet Peas were keenly competed, among the prize winners being such notable growers as Mr. Alex. Malcolm, Duns; Mr. D. Kidd, Carberry Tower; and Messrs. Campbell and Son, Blantyre. Much credit is due to the committee for the success of this fine show.

HORTICULTURAL SOCIETIES' SCHEDULES.

WILTS HORTICULTURAL SOCIETY.—The annual show of this society will be held on Wednesday, the 16th inst., in the Palace Ground, Salisbury. Very good prizes are offered for groups of plants, fruit, cut flowers, and vegetables. Altogether there are eighty-nine classes. The secretary is Mr. Leonard J. Sly, Blue Boar Row, Salisbury.

Llanishen and District Horticultural Society.—This society, which is affiliated with the Cardiff and County Horticultural Society, will hold its seventh annual show in the Vicarage Field, Llanishen, on Wednesday, the 9th inst. The hon. secretary, Mr. William J. Gunstone, Avondale, Llanishen, Cardiff, writes: "One class, No. 118, on page 16, takes very well with the working men of the place, and the competition is interesting, as they have to watch each other. If you think it worth mentioning in your paper, it may be of interest to other village shows. The prize was won last year by a competitor whose Potatoes dug from his perch yielded 248lb.—17 tons 14cwt 32lb. per acre. I may mention that the competition was suggested by a gentleman in this village who has done much to encourage the working men to take greater interest in their gardens."

Nantwich Floral and Horticultural Society.—Saturday, the 26th inst., is the date fixed for the annual show of this society. It will be held in the beautiful grounds of the Brine Baths Hotel. Altogether prizes are offered in more than 100 classes. Entries close on the 19th inst. Mr. T. Pedley is the secretary.

Mountain Ash Flower Show will be held on Thursday, the 24th inst., in the Pavilion, Mountain Ash. Entries close on the 19th inst. The schedule gives particulars of prizes in some 150 classes, Roses, plants, cut flowers, fruit, &c. The secretaries are Messrs. F. Turner and J. Pilgrim, Philip Street, Mountain Ash.

CARDIFF AND COUNTY HORTICULTURAL SOCIETY.

This society's show, which was held in the Sophia Gardens, Cardiff, on the 26th and 27th ult., proved to be the best that has taken place. The entries were more numerous than ever, and the exhibits generally were of a very high order of merit. Roses were remarkably well shown, together with groups of plants, Sweet Peas, bouquets, vegetables, and herbaceous flowers. Trade exhibits were also numerous and excellent in every way, while the arrangements, under the superintendence of Mr. Harry Gillett (secretary) and his committee were a great credit to them.

ROSES.

The classes were well filled. A class for a collection in a space of 6 feet by 3 feet enticed eight exhibitors, the leading one being Mr. G. Prince of the Oxford Nurseries, who set up a perfect bank both in its arrangement and assortment of varieties. Mr. Mattock, New Headington, followed closely, and was again closely run by Mr. W. Treseder of Cardiff and Mr. Stephen Treseder, also of Cardiff.

For twelve blooms, three of each, Mr. J. Crossling of Penarth Nurseries was first with a beautifully set up stand. Mr. Stephen Treseder followed closely, and also had a grand set of blooms, while Messrs. J. Jefferies and Sons, Cirencester, were a close third. There were six entries.

Teas or Noisettes, three blooms of each in twelve varieties, found Mr. Prince again leading; second, the King's Acre Nursery Company, Hereford, who also staged well, Mr. S. Treseder being third among seven exhibitors.

For twenty-four blooms Messrs. Jefferies led. Mr. S. Treseder was a close second.

Mr. Prince was once again placed first for six Teas or Noisettes, three blooms of each, among seven exhibitors. Messrs. J. Jefferies and Son were second, and Mr. Stephen Treseder third.

Mr. Prince was also first for twelve blooms of any one variety of Tea or Noisette with Beattie Brown.

Collection of hardy flowers, 15 feet by 3 feet.—These made a grand class, in which competition was very keen. Amongst several exhibitors the leading place was secured by Messrs. Harold and Wreford Evans, Llanishen, Cardiff, who arranged a fine bank. Mr. W. Treseder was a close second, and Mr. Pettigrew, gardener to Lord Windsor, St. Fagans, third.

Carnations and Picotees, arranged in a space of 6 feet by 3 feet.—These made an interesting class, in which Mr. W. Treseder secured leading honours, followed by Messrs. Blackmore and Langdon, Twerton Hill Nursery, Bath.

For twelve vases of Carnations and Picotees Messrs. Blackmore and Langdon took the lead, Mr. W. Treseder coming second.

In a class for six Carnations and six Picotees, Messrs. Blackmore and Langdon were again placed first with a fine lot of fresh blooms. Mr. Gough, gardener to A. W. P. Pike, Esq., was a good second.

SWEET PEAS.

These were splendidly staged, and filled a great portion of a large tent. Six exhibitors staged in a class for eighteen vases, amongst whom Mr. Thomas Jones, Ruabon, North Wales, secured the lead. Messrs. House and Son, Westbury-on-Trym, were second, and Mr. Pitt, Abergavenny, third.

Twelve vases arranged with Gypsophila or Fern: First, Mr. T. Jones, with similar kinds as in the larger class;

second, Mr. Harris, gardener to Mrs. Jenner, Wenrae Castle. There were six lots staged.

For twelve varieties of Mr. Eckford's raising, Mr. Jones again took the leading place; Mrs. Leigh Spencer, The Priory, Clifford, second; and E. P. Adey, Esq., Penarth, third. No less than ten exhibitors staged in this class.

TABLE DECORATIONS.

Two classes were provided for these, and though competition was keen there were no tables of very great merit. In the leading class three tables, 8 feet by 4 feet, were arranged, Mrs. Percy Phillips being placed first, and Miss Ellis, Cardiff, second. In a class for a table 4 feet by 3 feet were attracted seven exhibitors, the best being Miss Gough, who was followed respectively by Miss Stanley and Miss E. Brutt.

BOUQUETS.

It would be perhaps impossible to over-estimate these, for they were really perfect in their way. Mr. W. Treseder, who is at all times a strong exhibitor in these classes, was first for a bridal bouquet.

GROUPS OF PLANTS.

Six splendid collections were arranged in a class for a group in 150 square feet, Messrs. Cypher, Exotic Nursery, Cheltenham, being awarded the leading position for an arrangement equal to their best efforts, the plants employed being splendidly grown and suitable for their purpose; Messrs. Phelps and Co., Cardiff, were awarded the second place; and Mr. MacIntyre, gardener to Lady Hill, Llandaff, third.

For a group in 50 square feet Mrs. Evan Lewis was first, and Mr. W. N. Lawes, Trowbridge, second, amongst five exhibitors.

Tuberous Begonias in 40 square feet made a brilliant show, Mr. W. J. Orders being first, Mr. Green second, and Mr. MacIntyre third.

VEGETABLES.

There was a splendid display of these arranged in the many classes devoted to them. Collection of nine sorts: First, Mr. Beckett, gardener to Lord Aldenham; second, Mr. Harris.

Collection of vegetables for which Messrs. Sutton and Sons offered prizes: Mr. Beckett was again first with perfect specimens, and was again followed by Mr. Harris.

For a collection for which Messrs. Webb offered prizes Mr. Evan Thomas was placed first, while Mr. J. R. Thomas was the leading exhibitor for Messrs. Wheeler and Sons' collection.

FRUIT.

We have many a time seen fruit better staged at Cardiff than it was upon this occasion, though there were some good dishes shown.

Collection of six kinds: First, Mr. Pitt, Abergavenny; second, Mr. C. Curtis, gardener to T. S. Cartwright, Esq., Fairwater.

Two bunches of Black Grapes: First, Mr. Green, gardener to F. Davies, Esq.; second, Mr. Curtis.

One bunch of Black Grapes: First, Mr. Curtis, with good Madresfield Court; second, Mr. Harris.

Two bunches of White Grapes: First, Mr. Curtis; second, Mr. Coxom, gardener to R. England, Esq., Rumney Court.

One bunch of White Grapes: First, Mr. Curtis; second, Mr. Coxom.

Mr. Farmer, gardener to the Marquess of Bute, Cardiff Castle, was easily first with Peaches, staging Princess of Wales.

Mr. Pitt was first for Nectarines with good, well-coloured Lord Napier; second, Mr. Curtis, with fine Spencers.

Mr. Malpass, gardener to Dr. Lynn Thomas, took the lead for a white-fleshed Melon; second, Mr. Farmer.

Mr. Jones, gardener to Lady Morel, Penarth, was first with Blenheim Orange, and Mr. Farmer second for scarlet flesh varieties, Mr. Curtis being first for green-fleshed varieties.

TRADE EXHIBITS.

These were a great attraction, and did much towards making the show a success.

Gold medals were awarded to Messrs. Veitch and Sons, Chelsea, for a group of new and rare plants; to Messrs. Sutton and Sons, Reading, for Tomatoes and Melons; to Mr. Farmer for pot Vines in fruit and group of stove plants; to Messrs. J. Jefferies and Son, Cirencester, for a collection of conifers; to the King's Acre Nursery Company, for Roses and fruit trees in pots; and to Mr. Eckford, Wem, Salop, for Sweet Peas.

Silver medals were awarded to Messrs. House and Sons, Westbury-on-Trym, for hardy perennials; to Mr. Prichard, Christchurch, for herbaceous plants; to Messrs. Clibran and Son, for a collection of miscellaneous plants; to Mr. John Waterer, Bagshot, for retarded Azaleas, &c.; to Messrs. Barr and Sons for herbaceous plants; and to Messrs. Wheeler and Son, Gloucester, for herbaceous plants.

HOLYWOOD HORTICULTURAL SOCIETY.

THE third annual exhibition promoted by this society took place in fine weather recently, and was attended with a measure of success which should prove eminently gratifying. On the first two occasions the Hollywood Town Hall was utilised for the purposes of the show, but the building became too small for the increased number of exhibits, and the committee found it necessary to look for ampler accommodation. The Right Hon. Sir Daniel Dixon, Bart., D.L. (Lord Mayor of Belfast), kindly placed Ballymenaoh demesne at their disposal, and volunteered to give whatever additional help he could in carrying out the arrangements for the show, which had, of course, to be more elaborate than previously. Lady Dixon also took an active

part in the work, and showed her thorough sympathy with it by accepting, in spite of more pressing claims upon her time, the invitation of the committee to perform the opening ceremony. Amongst the others who exerted themselves on behalf of the exhibition was Mrs. M'Canee of Knocknagoney. Those at the head of affairs this season have been laid under a deep obligation to Mr. Hugh Dickson, of the Royal Nurseries, Belfast, for the magnificent contributions he forwarded, and the pains he took in staging them. The centre of the tent was occupied by a display of his that would be hard to beat anywhere. Included amongst Mr. Dickson's Roses, over 2,000 of which he had staged, were some of his own seedlings which won gold medals at the National Rose Society show, and they were very fine. Mr. E. Milligan, Priory Park Nursery; Messrs. Alex. Dickson and Sons, Limited, Royal Nurseries, Newtownards; Frank E. Smith and Co., Belfast; and Thomas Smith, Newry, also sent charming displays, for which the committee felt greatly indebted.

SPRINGFIELD HORTICULTURAL SOCIETY.

THIS society held its sixty-eighth annual show in a marquee near the Parish Church on the 22nd ult. It was quite equal to any of former years in point of entries and quality, the finest exhibits being in the cut flower department. Vegetables were very good, and fruit was well shown. The pot plants were not a strong class in numbers, but several exhibits were of very high quality. Among the leading prizewinners were Messrs. Kidd, Paterson, Denholm, Ramsay, Hall, Garland, McKenzie, Walker, Oliphant, Morgan, Lister, Goldie, Wallace, and Russell. A fine exhibit of stove and greenhouse plants, sent by Sir Michael B. Nairn of Rankel Nour, added greatly to the appearance of the show.

BRITISH GARDENERS' ASSOCIATION.

THE newly-elected executive council held its first meeting on Friday, the 21st ult., at the Hotel Windsor, Victoria Street. The secretary, Mr. Watson, reported the progress made since June 1. Twenty-seven new members had joined, bringing the total number up to 659, and donations amounting to £11 17s. had been received, including £10 from Mr. A. K. Bulley, who wrote:

"DEAR MR. WATSON,—I am afraid I am too far from the centre of action to enter effectually into your movement, but the substitution of organisation amongst gardeners for the present vexatious and chaotic conditions seems to me wholly good. Its main object must, of course, be the benefit of gardeners by the thousand and one channels which association is always able to command. But it will also be a great advantage to all employers who believe in good work and good pay, for it is certain that it will be the most enlightened and intelligent section of the workers who will be the most prompt to join an association for the common good. I wish you well, and enclose £10 towards your initial expenses. Try, as soon as you can, to get the association free from any charity basis. Even if it means considerable pinching and work done without pay, it is better to do what you can on the saved pennies of the gardeners.—Yours faithfully, ARTHUR K. BULLY."

Attention was called to the observations of Sir William Thisselton-Dyer on the gardener movement recently published in the *Gardeners' Chronicle*, and to the remarks of the Duke of Westminster at the annual dinner of the Gardeners' Royal Benevolent Institution on June 16. His Grace then said: "But the life of the gardener was not literally a bed of roses, nor were his gains great. He was a skilled workman who gave an infinite amount of pleasure to the community at large by his labour and ingenuity, and yet his wages compared very unfavourably with those of skilled workmen in other branches of industry. Few gardeners could afford to lay by from their wages a sufficient sum to enable them to meet the rainy day or the inevitable prospect of old age. He therefore commended the charity to their notice, confident that when its objects were more generally known further generous contributions would be forthcoming."

The council decided to make arrangements for a conference of members and others interested, to take place in October during the great autumn fruit show of the Royal Horticultural Society. To this conference branches of the British Gardeners' Association will be invited to send delegates. A proposal to engage the services of a paid secretary to devote his whole time to the work of the association was considered, but the council decided that in the present condition of the association it would be unwise to incur the expenses of a paid secretary and a central office. The council hope before long to make arrangements for monthly meetings to take place in or near the Royal Horticultural Society's hall in Vincent Square concurrently with the meetings of the Royal Horticultural Society.

On the motion of Mr. Winter, seconded by Mr. Watson, Mr. J. Weathers was unanimously elected hon. secretary of the association. All communications affecting the British Gardeners' Association should therefore in future be addressed to Mr. J. Weathers, Talbot Villa, Isleworth, Middlesex. The members of the executive council are: T. H. Candler, The Gardens, Warley Place, Great Warley; G. H. Clack, Putney Park, Putney; W. E. Close, superintendent of parks, Fulham; C. H. Curtis, 2, Adelaide Road, Brentford; W. Dallimore, Royal Gardens, Kew; G. Gordon, Priory Road, Kew; J. Lawson, Horticultural College, Swanley; R. Hooper Pearson, 40, Brocklebank Road, Earlfield; W. Taylor, The Gardens, Tewkesbury Lodge, Forest Hill; W. Watson, Royal Gardens, Kew (chairman); J. Weathers, Talbot Villa, Isleworth (hon. secretary); T. Winter, superintendent of parks, Marylebone.



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Horsfieldii, large forcing size, 6/- per 100, 1/- dozen.

Barri Conspicuous, extra selected, 25/- per 1,000, 3/- 100, 6d. dozen.

Beauty, 12/- 100, 1/9 dozen.

Sir Watkin, extra size, 50/- 1,000, 5/6 100, 10d. dozen.

CHOICER VARIETIES.

J. B. M. Camm, 40/- 100, 5/- dozen, 6d. each.

Duchess of Westminster, 25/- per 100, 3/6 dozen.

Madame de Graaff, 20/- dozen, 1/9 each.

Gloria Mundi, 2/9 each.

King Alfred, £3 3s. each.

Weardale Perfection, 25/- each.

Duke of Bedford, 25/- each.

Lulworth, 15/ dozen, 1/6 each.

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AN INSPECTION OF OUR SHOWROOMS INVITED.

ROYAL HORTICULTURAL SOCIETY.

THE exhibition on Tuesday last was very bright, and many beautiful groups of summer flowers were shown. Fruit was better represented than usual.

FRUIT COMMITTEE.

Present: Mr. George Bunyard (chairman), Messrs. S. Mortimer, Alex. Dean, George Kelf, H. Parr, H. Markham, F. O. Lane, J. Willard, J. McIndoe, C. Foster, Owen Thomas, George Wythes, A. H. Pearson, J. A. Pettigrew (Boston, U.S.A.), G. Norman, and J. Cheal.

The Hogg Memorial Medal for fruit was awarded to Mr. George Norman, gardener to the Marquis of Salisbury, Hatfield House, Herts, for a collection of splendid fruit. The Peaches Barrington and Bellegarde, Nectarines Elruge and Pitmaston Orange were as good as one could wish to see. Grape Madresfield Court was finely shown, and the Melons, too, were very good. The arrangement of this exhibit was most effective, the boxes and dishes resting in a bed of greenery, while vases of Carnations were tastefully used also.

Messrs. James Veitch and Sons, Limited, Chelsea, exhibited a large and representative collection of Gooseberries, contained in over 100 baskets, and representing almost as many varieties. The fruits were splendid specimens. Among the newer varieties were Langley Gage, Golden Gem, and Langley Beauty, all first-rate sorts, while the standard sorts of Gooseberries were all finely shown. Forming a background to this display were Gooseberries in pots, and bearing excellent crops. A gold medal was awarded.

Messrs. Thomas Rivers and Son, Sawbridgeworth, exhibited pot trees of their new Peach Peregrine, bearing good crops of this beautiful variety. It is a midseason Peach, large and handsome, with a bright crimson skin. It is of excellent flavour. It is, curiously, a seedling from the Spenser Nectarine. A silver-gilt Banksian medal was awarded to this exhibit of five perfect trees.

Messrs. Dobbie and Co., Rothsay, exhibited a collection of Potatoes in thirty-eight varieties, each variety shown in a separate basket of twenty tubers. They were all good, clean samples of early and second early varieties. Ruby Queen (purple kidney), Dalmeny Early (early white round), and Midlothian Early (early white kidney) were among the new ones. Silver Knightian medal.

Mr. F. May, gardener to H. O. Lord, Esq., Lilley Brook, Charlton King's, Gloucester, showed Melon Lilley Brook, a large white flesh variety, but no award was made. The committee asked to see a smaller fruit.

Red Currants Fay's Prolific and La Versailles were shown by Messrs. J. R. Pearson and Son, Lowdham, Notts.

ORCHID COMMITTEE.

Present: Mr. J. Garney Fowler (chairman), Messrs. James O'Brien, de B. Crawshaw, Francis Wellesley, Norman C. Cookson, Jeremiah Colman, G. F. Moore, H. T. Pitt, Richard G. Thwaites, James Douglas, W. H. White, T. W. Bind, W. H. Young, John W. Odell, W. Boxall, H. A. Tracy, H. Little, Harry J. Veitch, F. W. Ashton, and H. Ballantine.

Messrs. Charlesworth and Co., Heaton, Bradford, Yorks, showed a pretty group of Orchids, consisting chiefly of some very fine Lallo-Cattleyas and hybrid Cattleyas. *Odontoglossum R. life* was finely shown. The curious *Cynoches chlorochilum* was included. A botanical certificate was awarded to *Promenaea Rolissoni*. Silver-gilt Flora medal.

A cultural commendation was awarded to *Platyclinis glumacea*, a splendid plant, bearing a large number of its slender pendent racemes of fragrant pale yellow flowers, shown by Sir Trevor Lawrence, Bart. A botanical certificate was awarded to *Dendrobium ciliatum annanense*, and to *Grobya galeata*, sent, together with other inconspicuously flowered Orchids, by Sir Trevor Lawrence, Bart., Burford.

Several single Orchid plants were shown, among others being *Phalaenopsis rimstadiana* alba from M. Otto Beyrodt, Marlenfeld, Berlin; *Cypripedium Miss N. Tillen* (niveum x *Godefroy*) from F. Wellesley, Esq., Westfield, Woking; *Lelia Iona*, and a very fine variety of *Odontoglossum Pescatorei* from Messrs. Hugh Low and Co., Enfield; *Cattleya Atalana ignescens* from R. G. Thwaites, Esq., Streatham (gardener, Mr. J. W. Black); *Cattleya gaskelliana* Mrs. Goodson from H. S. Goodson, Esq., Putney; *Cattleya hardyana* var. *Gwendolen* from W. A. Bilney, Esq., Weybridge; and flowers of *Colae triptera* (Brazil), shown from the Glasnevin Botanic Gardens.

Cattleya germania magnifica.—The parents of this handsome hybrid are *Cattleya schofieldiana* and *C. hardyana*. The sepals and petals are broad, heavily veined soft rose upon a pale green ground, which, however, only faintly shows. The lip is rich purple with white showing through at the base. The column is overlapped by two light purple lobes. From Messrs. Charlesworth and Co., Heaton. Award of merit.

FLORAL COMMITTEE.

Present: Mr. H. B. May (chairman), Messrs. C. T. Drury, James Hudson, J. W. Barr, J. F. McLeod, J. Jennings, William H. we, C. R. Fielder, J. T. Bennet-Poe, R. Hooper Pearson, H. J. Jones, C. Dixon, C. Jeffries, Charles E. Pearson, Charles E. Shea, W. P. Thomson, William Cuthbertson, E. H. Jenkins, and W. J. James.

The collection of Gladioli from Messrs. Kelway and Son, Langport, formed one of the best floral exhibits on this occasion. There was a conspicuous freshness about the spikes of the flowers that attracted attention at once, and in other ways the collection was of that meritorious character for which the Langport firm has long been noted. Arranged on the platform stage at one end of the hall the collection of some 150 or 200 spikes presented ample opportunities for inspection. Of pure

white kinds we take Aphrodite, Mrs. Lund, Lady White, and Countess Crewe, the two latter slightly coloured on the lower petals. Countess of Dudley, Beatrice Kelway, Duke of Norfolk, Mrs. J. Lang, Mrs. Badcock, and Queen Alexandra are of salmon or salmon scarlet; and Prince of Orange, Empress Frederick, Primrose, Grandeur, Bona, Davy, Leader, and Marchioness of Granby are all of yellow tone, with more or less delicate markings either in the throat or the petals. The collection contained a choice assortment of these beautiful summer flowers.

Double zonal Pelargoniums were well shown by Messrs. Cannell and Sons, Swanley, some thirty of the leading kinds being staged in the best possible manner.

Mr. W. A. Watts, St. Asaph, showed a group of cut Carnations in vases. George Maquay, white; Pied Pique; Ceres, deep yellow; Mrs. Kearsley, pink; and Evadne, fine white, were among the more prominent.

Single flowers of double and single Begonias, chiefly named kinds, were shown by Messrs. B. R. Davis and Sons, Yeovil, Somerset. Many good varieties were displayed.

Messrs. William Bull and Sons, Chelsea, staged choice Caladiums, of which some striking and good forms were remarked.

Mr. James Douglas, Great Bookham, Surrey, showed some excellent border Carnations, such as the Old Guard, crimson scarlet; Duke of Norfolk, scarlet; Daffodil, a grand yellow; and Horsa, yellow ground, crimson flaked.

Hardy flowers, such as Phloxes, Hollyhocks, perennial Pea, Gladioli, Liatris, white Agapanthus, Water Lilies, Montebrias, Delphiniums, Gaillardias, Tritomas, and other plants were shown in good condition from Messrs. Barr and Sons, Covent Garden.

Mr. Amos Perry, Winchmore Hill, had a fine display of hardy flowers, particularly of Phloxes, Lilies—as, e.g., L. chalcedonicum Heldreichii (rich scarlet), L. speciosum Kretzeri, and others—Iris levigata, Gaillardias, Asclepias tuberosa (fine orange shade), Stokesia cyanea præcox, Rudbeckias, and the like. The hardy Water Lilies as a margin to the group were a splendid feature.

Messrs. Veitch and Sons, Chelsea, filled a large table with choice annuals. Godetias, Chrysanthemums in variety, Marigolds, Calliopsis, Nemesis, and many more were arranged in a most attractive manner, the vases being filled with fresh and bright flowers cut with full length sprays and stems.

At one end of the group a few choice or rare greenhouse flowering plants were well shown; and among these we noted *Exacum macranthum*, very rich in colour; *Ruellia amena*, with scarlet tubular flowers; and *Cyrtoceras reflexum*, a very striking plant, with creamy reflexing blossoms, in compact Hoya-like trusses. Very interesting, too, were the examples of *Kalanchoe*, *K. flammea*, and *K. kewensis*.

Messrs. Hugh Low and Co., Enfield, contributed a small collection of Crotons, with *Medeola asparagoides myrtifolia* and the old *Smilax* for comparison.

A large collection of Phloxes from Mr. E. Potten, Cranbrook, Kent, was a most effective item. *Salvator Roma*, lilac and white; Mrs. Oliver, salmon, white eye; and Jules Cambon, purplish rose, white eye, were among the more distinct. Other showy plants were included in the group.

Hardy plants were well shown by Mr. M. Prichard, Christchurch, Hants. Of especial merit were the Gaillardias and Kniphofias, a large collection of the latter being staged. *Montebria Rayon d'Or* is a very striking plant, and other good plants included *Crimson Powell*, *Spirea Aitchisoni* (a shrubby species with white flowers), Phloxes, and a good assortment of *Gladiolus* hybrids of Childs, Nanceaus, Lemoinei, and others.

Hollyhocks from Messrs. Webb and Brand, Saffron Walden, were very fine, full-grown spikes and blossoms arranged on boards, giving an excellent idea of the merits of these tall and showy border flowers, for which this firm has long been noted.

The collection of Phloxes from Mr. Percy Waterer, Fawkhams, Kent, contained a large and representative gathering.

In a group on the floor Messrs. Veitch arranged *Ioula racemosa*, *Senecio olivorum* (very striking), *Eucryphia pinatifolia*, *Asitibe Davidii*, and *Sambucus canadensis*, a striking and handsome species.

Messrs. J. Laing and Sons, Forest Hill, contributed *Caladiums*, *Dracænas*, *Alocacias*, *Crotons*, and the like in a large group.

Sweet Peas were shown by Miss Tarbolton and Miss Pollard, East Grinstead. The sprays were arranged in a natural way with their own foliage.

Messrs. Richard Smith and Co., Worcester, brought a large gathering of hardy flowers, in which *Platycodon grandiflorum*, *Scabiosa caucasica*, Phloxes, *Campanulas* in variety, *Iris Kämpferi*, Water Lilies, and other showy plants were seen.

Messrs. Paul and Son, Old Nurseries, Cheshunt, had *Potentilla Friedrichianii*, a yellow-flowered shrubby species, and examples of the new purple-leaved Peach, with the common purple form for comparison.

Messrs. J. Cheal and Sons, Crawley, had a small collection of Dahlias (singles) and Cactus flowered varieties principally, the quality excellent for so early a date.

Mr. L. E. Russell, Richmond, contributed a large assortment of Crotons in medium-sized plants.

Hardy flowers were well shown by Messrs. T. S. Ware, Limited, Feltham, Delphinium *Belladonna* being very fine, and Dahlias, Phloxes, Carnations, the new perennial Pea, a large assortment of Gladioli, and many other good showy things.

Gloxinias in nicely-grown plants were well shown by Messrs. Peed, West Norwood, a large variety of colour and good flowers denoting a choice strain.

Selaginellas in fifty different kinds, with *Ixora dixoniana*, and a collection of *Bouvardias* in a setting of Ferns, filled

a large table, Mr. H. B. May, Edmonton, being the exhibitor.

Messrs. Gunn and Sons, Olton, Birmingham, contributed a fine lot of Phloxes, chiefly in large masses, which were most effective.

Mr. G. Reuthe, Keston, Kent, had sprays of *Berberidopsis corallina* in flower, with Phloxes and other hardy things.

Messrs. William Paul and Son, Waltham Cross, staged Phloxes, cut branches of trees and shrubs, such as *Pavia macrostachya*, Oaks, &c. Roses of the *wichuraiana* group, and Rose Earl of Warwick, a new deep flesh-toned Hybrid Tea, were also well shown.

A large assortment of annuals, well grown and equally well staged, occupied the whole of a long table, Messrs. Cannell being the exhibitors. Candytuft, *Antirrhinum*, *Centaurea imperialis*, *Asters*, *Dianthus*, *Chrysanthemum tricolor*, *Lavatera*, *Clarkia*, *Browallia*, and *Shirley* and other Poppies, made quite a feast of these easily-grown, free-flowering plants.

The following medals were awarded by the floral committee:

Silver-gilt Flora to Kelway and Son, Langport; James Veitch and Sons, Limited, Chelsea. *Silver Flora* to Barr and Sons, Covent Garden; Cannell and Sons, Swanley; Cheal and Sons, Crawley; B. R. Davis and Sons, Yeovil; J. Douglas, Edenside; Gunn and Sons, Olton, Birmingham; H. B. May, G. H. F. Nye, Amos Perry; R. Smith and Co., Worcester; Mrs. Tarbolton and Miss Pollard, East Grinstead; Percy Waterer, Fawkhams; W. Watson and Son, Dublin; Webb and Brand, Saffron Walden; William Bull and Sons, Chelsea; Laing and Sons, Forest Hill; L. R. Russell, Richmond. *Silver Banksian* to T. S. Ware, Limited, Feltham; Hugh Low and Co., Enfield; William Paul and Son, Waltham Cross; J. Peed and Son, Norwood; E. Potten, Cranbrook.

NEW PLANTS.

An award of merit was given to each of the following plants: *Centaurea Jarman's* strain (Jarman, Chard); *Gladiolus Lady Inchiquin* (Kelway, Langport); *Tritonia Prometheus* (Major Petre, Norwich); *Sambucus canadensis* (Veitch, Chelsea, and Sir Trevor Lawrence, Bart.); *Campanula carpatia White Star* (Prichard); *Hemerocallis Dr. Regel* (Prichard); *Spirea Aitchisoni* (Prichard, and Sir Trevor Lawrence, Bart.); *Carnation Roy Morris* (H. W. G. Morris); *Berberis vulgaris foliis purpureis* (macrophylla (Paul, Cheshunt); and *Buddleia variabilis magnifica* (Veitch, Chelsea). These will be described next week.

CARDIFF GARDENERS' ASSOCIATION.

THE ninth annual outing of the association will take place on Monday, the 14th inst., to the King's Acre Nurseries, Hereford, by the kind invitation of T. Seaton, Esq., managing director, who has very generously arranged to meet the party upon arrival at Hereford Station with brakes for the three miles drive to the nurseries, and entertain them to luncheon, after viewing their large and varied collection of plants, flowers, &c. The train will leave the Great Western Station, Cardiff, at 8 a.m. sharp, returning from Hereford at 3.45 p.m. (Saloons provided). It has also been arranged that after luncheon brakes will be in readiness to convey the party over a six miles drive to Holme Lacy (by kind permission of the Right Hon. the Earl of Chesterfield) to view the historic and extensive pleasure grounds, &c. The tickets (to members only) will be 10s. 6d. each, which will include the railway and brake trip to and fro to Holme Lacy and tea.

Obituary—Mrs. G. A. Knight.—

We regret to hear of the death, on June 10, of Mrs. G. A. Knight, wife of Mr. G. A. Knight, of the Mount Tolmie Nursery, Victoria, B.C., aged fifty-three years. She was a native of Birmingham, England, and had resided in Victoria about twenty-six years. She is survived by her husband, two sons, and three daughters. Mr. G. A. Knight is a valued contributor to THE GARDEN.

Fruit crops in Bucks.—

The fruit crops in this district are very irregular. There was a wealth of blossom, and every prospect of a good fruit season. The frosts of May 22 and 23, followed by cold easterly winds, and the long-continued drought of May and the beginning of June, played havoc with the blossom. Apples are an average crop; Lord Suffield, Ecklinville Seedling, Bramley's Seedling, and Adam's Pearmain are very good. Pears are very poor. Plums are under the average; Kirk's Monarch and Reine Claude de Bavay are the best. Peaches and Nectarines are bad. Apricots are good, especially Moorpark and Kaisha. Strawberries have been exceptionally abundant and of good quality. Red and Black Currants, Gooseberries, and Raspberries are plentiful. Cherry trees trained on walls, and also standard trees, have been very good. The soil here is very light and gravelly, on a subsoil of gravel and chalk.—G. W. SMITH, The Gardens, Dane-field, Marlow, Bucks.

* * * The Yearly Subscription to THE GARDEN is: Inland, 6s. 6d.; Foreign, 8s. 9d.

THE GARDEN.

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AUGUST 12, 1905.

TREES AND SHADE.

HOW enjoyable the shady nooks of our gardens have been during the broiling days of July need not be dwelt upon. Any tree-shaded recess during the hot months of summer becomes the favourite garden resort during the midday glare; even the attractions of the flowers failing to make us linger long about the open parterres while the sun is high and the heat oppressive. Yet we do not seem to take so much pains as our forefathers did in the creation of green alcoves and cool arbours facing the north, of which one hears so much in the descriptions of old gardens; nor in the careful providing of the shady "wilderness," which was the ever-necessary appendage to every English mansion of the olden time, though scarcely ever thought of in the formation of modern gardens, in which all is required to be so trim and smart that the delightful old bit of wild Nature has had to submit to banishment, and, along with it, its subdued light, its cool shades, and all the charms of its natural wildness, in which Bramble and Bryony were allowed to intertangle themselves with Ivy as an undergrowth, and a Moss-grown pathway or two, could not even remain unmolested. In Elizabeth's time Shakespeare often alludes to shady garden bowers and Yew arbours as favourite retreats in summer days; and delights to dwell upon such features in the gardens of ancient times. In old gardens the cropped Yew or Holly hedges of great height, green walls of verdure, made gloriously shady walks, impervious to a single ray of light. Between two such hedges constant shade prevailed, and a fountain at one end added to the aspect of refreshing coolness. Nothing would be more easy than to plan and plant summer groves and groups of shade-giving trees in every new garden, large or small, according to the space at command, for there is no necessity to have recourse again to the cropped Yew hedges or Yew arbours of our forefathers, or to any other kind of topiarian work. The central fact to be borne in mind about shade trees is that some kinds are frequently planted which are useless for this purpose. Shade trees are of more importance in the heated streets of a city and in promenades, but it is absurd to

plant a tree to furnish shade which frequently begins to lose its leaves before the hot summer days have set in. A good tree for shade is the Black Italian Poplar, and it possesses these essential qualifications even in London, where the Lime fails so much sooner than it does in the country. Some of the *Acer platanoides* and the Sycamore and its varieties are strongly recommended, but the Horse Chestnut loses its leaves in cities prematurely, and somewhat after the fashion of the Lime. The Ashes have fine qualities as shade trees, retaining their handsome leaves throughout the summer. The Planes are very fine, but somewhat open; they also begin to show the yellow leaf too soon, but never in a very objectionable way. The Tulip Tree, when old and spreading, is a good shade tree. *Populus alba* and *P. a. acerifolia* are also valuable. Perhaps the most charming green hues are afforded by Robinia and its varieties, which, though somewhat late in coming into full leaf, retain their exquisite verdure till late in the year.

Many trees may be named which, in open situations, may be readily trained to form of themselves isolated shady retreats, even on a sunny lawn. The Weeping Ash, for instance, in a good situation will very quickly form a perfect tent of verdure, providing ample room within its descending branches for garden seats, and even a rustic table. The Weeping Mountain Elm, again, forms a fine, far-spreading canopy of very dense foliage, which, though not descending perpendicularly to the ground, and so forming an absolute tent like the Weeping Ash, is perhaps more impervious to the sun-rays, and casts a broad and deep shadow, in which a certain amount of coolness may be constantly enjoyed. Then there is the Weeping Willow, never yet utilised in this way, which, by careful management, might be made to form garden apartments of very picturesque character; for instance, let four young trees, high standards, be planted at the angles of a square about 9 feet in diameter; let a slight framework be raised, over which the lateral branches are to be trained; and in three or four years an interlaced roof of summer greenery of considerable expanse will be formed, and then the new branches may be allowed to descend all round, forming a screen, or, rather, gracefully descending curtain, surrounding the entire space intended

to be so enclosed. This result being achieved, the trees may be allowed to pursue their natural growth, and all appearance of formality will rapidly disappear, leaving to the pleasantly enclosed and shaded place the aspect of being merely a graceful accident of Nature, especially after the removal of the original supports to the roof of interlaced verdure, which may be done as soon as the branches have permanently assumed their positions and acquired sufficient strength to support themselves without extraneous aid. Many other shade-producing devices of more or less pleasing and appropriate garden character might be formed.

IN THE TIME OF YUCCAS.

MUCH might be written, and that to good purpose, on the stately effects to be obtained by the judicious planting of Yuccas of different kinds in garden scenery. It is impossible to overlook the beauty of Yuccas, even when planted singly or in formal lines, but, if arranged in bold groups and masses, they are unsurpassed as flowering and foliage plants for outdoor decoration. Just now, and for the next two months, Yuccas will be in flower, and their great panicles of pearly-white bell-shaped blossoms contrast so well with bright green conifers and low-growing shrubs of less distinct contour that all through the summer and autumn it is possible to form charming pictures by massing them either on the margins of shrubberies or in sheltered nooks on the lawn and pleasure grounds. This plant is simply invaluable if properly used in forming picturesque groups and clumps instead of being, as is too often the case, dotted indiscriminately here and there on turf in unmeaning regularity. It has been said that the Hollyhock is the only decorative flowering plant of any importance to the landscape gardener. Yuccas are even more stately however, and, moreover, they are permanent in character, being quite as ornamental in winter as in summer. They succeed nearly equally well in any soil, but a deep, rich, well-drained loam is preferable, and they make finer specimens, if sheltered from rough cold winds, than they would do if more exposed. The flowers of all the species—and these are more numerous than many imagine—closely resemble each other, being mostly of ivory-like whiteness within, the backs of the thick wax-like segments being more or less tinted with purple. Much may be made of Yuccas by associating them in well-arranged masses along with other distinct and gracefully habited plants, such as the Pampas Grass, *Arundo conspicua*, hardy Bamboos, dwarf Fan Palms, and a

score of other valuable decorative plants too seldom seen in our gardens. Among the many advantages possessed by Yuccas over other hardy evergreen plants is the vigorous growth they make in town gardens where many other plants would fail. Yuccas have been grown in English gardens for nearly 300 years, and yet they are far from being plentiful.

THE EDITOR'S TABLE.

SEEDLING CARNATIONS.

Mr. Petherbridge, Wern Dantzey, Paignton, sends a very beautiful series of seedling Carnations, which show great variation of colouring, and few have any tendency to burst the calyx. Beauty, yellow, cut into with heliotrope; J.P., yellow, deep claret edge to the petals; and Torbay, creamy yellow, with markings of pale heliotrope—a very fine flower—were particularly worthy of mention. We hope our correspondent will persevere with his interesting task.

CHOICE SHRUBS.

From Redruth, Cornwall, Messrs. V. N. Gauntlett and Co. send a choice gathering of shrubs and flowers, among them being *Ozothamnus thyrsoideus*, thickly smothered with small white flowers; *Buddleia variabilis*, *Escallonia langleyensis*, *Olearia macrantha*, *Phlomis fruticosa*, *Phormium tenax viride*, and others.

SHASTA DAISIES.

From Swanswick Cottage, Bath, Mrs. Leslie Williams writes: "I send for your table flowers of two seedling Shasta Daisies I have raised, and named *Le Géant* and *Le Nain*. The big one is a plant of good stiff habit, and does not fall abroad in drought, and I am anxious to know if you think it a fine flower. I have all the best named varieties of *Leucanthemum*, and it seems to me far larger than any. It is a late flowerer, beginning when the others are all either getting over or in their prime. It and the other are in the hands of Messrs. Thompson and Morgan for trial, but I have retained the stock. The dwarf form, *Le Nain*, makes a compact little bush about 8 inches high, very stiff in the stems, neat, and very floriferous, and I think it should be valuable for bedding out, as, of course, it is an absolutely hardy perennial, indifferent to weather or soil. Please tell me what you think of these? The stems of the dwarf sent are cut close to the root, showing height. The larger one is 2 feet high. Can you tell me why one gets yellow colourings in *Phlox Drummondii* when there are none among the herbaceous *Phloxes*? Would a cross be possible? I have some good yellow *Phlox Drummondii*, and think this colour would be lovely in the herbaceous ones."

[The big Shasta Daisy is certainly a very handsome flower, and we can imagine a mass of the smaller one to be very effective. One cannot, however, fairly judge a plant whose chief value lies in habit and floriferousness from a cut flower. Perhaps some reader may be able to give our correspondent an answer about the *Phloxes*.—Ed.]

MANDEVILLEA SUAVEOLENS.

Mr. Silcock, Hollycombe Gardens, Liphook, Hants, sends "sprays of *Mandevillea suaveolens* gathered from a plant which is growing in the open against a brick wall facing nearly due south. The plant, with others, was raised from seed about four years ago, and when about 9 inches high was planted out in the present position. The first two seasons after planting no flowers appeared, but in 1904 it flowered freely, and even matured seed, from which I have been able to raise a quantity of young seedlings (I enclose a last year's empty seed pod). The plant is growing in a compost of fairly heavy loam, leaf-soil, and

brick rubble, with plenty of drainage, and during hot dry weather a good supply of water is given, with an occasional watering of farmyard manure. I may add the roots are protected with Bracken during the winter."

PRIZES OPEN TO ALL. AUGUST.

ESSAY ON BULB PLANTING.

- A First Prize of FOUR GUINEAS,
A Second Prize of TWO GUINEAS,
A Third Prize of ONE GUINEA,
And a Fourth Prize of HALF-A-GUINEA

are offered for the best Essay upon "*Beautiful Ways of Planting Hardy Spring-flowering Bulbs*."

The essay must not exceed 1,000 words, and should mention the best kinds for massing in the flower garden, the border, in the wild garden, &c., in spring, and the most beautiful ways of using them. The essays must reach the offices of THE GARDEN, 20, Tavistock Street, Covent Garden, on or before the 31st inst. Envelopes must be marked "Competition." The essays must be written on one side of the paper only. Competitors not conforming to these rules will be disqualified. The Editor cannot undertake to return the MSS. of unsuccessful contributors.

PLAN OF A FLOWER BORDER.

A FIRST PRIZE of *Five Guineas* and a second prize of *Two Guineas* are offered for the best plan of a border of hardy perennials, 130 feet long by 10 feet wide, drawn to a scale of a quarter of an inch to a foot; bold grouping and good arrangement for colour and succession to be the main considerations. Half-hardy and hardy annuals and biennials may be included. The names of the plants to be written in their spaces on the plan—not referred to by letter or number. This competition remains open until the last day in September.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

- August 15.—Royal Horticultural Society's Meeting; Clay Cross Horticultural Show.
August 16.—Bishop's Stortford, Calne, and Harpenden Flower Shows.
August 17.—Dyffryn District and Taunton Deane Horticultural Shows.
August 19.—Seascale and Lake District and Sheffield Flower Shows.
August 21.—Warkworth Horticultural Show.
August 22.—Rothesay and Oxford Flower Shows.

Mr James Jeffrey, who has just entered upon his duties as head gardener to the Earl of Ancaster in his celebrated gardens at Drummond Castle, Perthshire, is a young gardener to enter upon such a responsible position, but his past career and experience have been such that he may be expected to fulfil his duties in a most successful manner, and those who know him feel confident that the high reputation the gardens have maintained will be retained under his management. Mr. Jeffrey served his apprenticeship with his father, Mr. James Jeffrey (now of St. Mary's Isle, Kirkcudbright), at Harewood House, Leeds. Thence he went to Keir, where he was for three seasons. After leaving Keir, he went to Trent Park, New Barnet, under Mr.

Lees, to whom he gave so much satisfaction that he was promoted to be foreman after a few months. When he left Trent Park he went to Brougham Hall, Penrith, as foreman. For the past sixteen months Mr. Jeffrey has been in the employment of Messrs. Dicksons and Co., Edinburgh, for whom he superintended the laying out and planting of a large new garden in Ireland.—A.

Horticultural show.—A meeting was held at Trimsaran, Carmarthenshire last week, when arrangements were further matured for the above event, which will take place on September 2.

Campanulas, &c., at Ravenscourt Park, Hammersmith.—A houseful of Chimney Campanulas (*C. pyramidalis*) at this well-kept London County Council park—very creditable to the superintendent, Mr. Gingell—is just now a very beautiful feature. The plants are some 6 feet or more high, and perfectly clothed with their attractive white and Cambridge blue flowers; what a grand decorative subject! These plants delight in a light, rich soil, freely drained, and they are never allowed to suffer from want of water, a condition of affairs that would impoverish their growth, and renders them susceptible to insect prey—green fly or red spider. Near to this structure and the library is a magnificent *Catalpa bignonioides* in full flower, and a wall of this building exhibits a rich profusion of the lovely bright blue flowers of *Ceanothus azureus*. The sunny aspect here suits it admirably.—QRO.

Cabbage Sutton's April.—At this date the grower who requires good spring Cabbage must sow for that purpose, and a note on the above may not be out of place. I do not go so far as some gardeners, who assert that Cabbage unless sown on a certain date will fail, but I do think that much depends upon the variety and good seed stock. When these are secured and sowings made late in July in the north and early in August in the southern parts of the kingdom, there will be a good return. The seed should have ample room. Many plants are crippled in their infancy by thick sowing, and when every seed germinates this should be avoided. For first supplies, that is, for cutting in March, April, and May, I do not know of a better variety than the one noted above. Some of your readers may think March an early date, but this is not so if the weather in the early part of the year is favourable to growth, as Sutton's April soon turns in. Last season this variety was splendid. Out of a large number not one in a hundred bolted.—G. W.

Nigella Miss Jekyll.—We have grown this plant this year, and have found it a very attractive annual. It is of a deep violet-blue shade, and much larger than the old *Love-in-a-Mist*. As a buttonhole flower it is much admired, and for exhibition purposes where annuals are shown it should rank high for its quaint, elegant habit. *Love-in-a-Mist* always makes an interesting bed in a garden, especially where a blue scheme of colour is required.—WALTER SMYTH, *Holywood, County Down*.

A raiser of new Gladioli.—The paper by Mr. H. H. Groff of Simcoe, Ontario, on "Breeding from 'Tame' v. 'Wild' Species," which was presented at the Plant and Animal Breeders' Convention in St. Louis, December, 1903, has had such a wide circulation and attracted so much attention in England and the United States that a second edition of the printed copy has been issued. Since the circulation of the first edition Mr. Groff's claims for the great advantages to be gained by breeding from domestic specific types have been supported by Professor Hugo de Vries of Holland in his lecture at the World's Fair, St. Louis, in September, 1904. Professor de Vries' conclusions were reached after an exhaustive series of experiments conducted for the purpose of proving that domestic species could be produced within a comparatively limited period of operation.

A new herbaceous perennial (*Angelonia integrifolia*).—This is an interesting new herbaceous perennial for the warm greenhouse from Brazil and Paraguay. A plant now flowering in the greenhouse at Kew has four growths, 3 feet 6 inches to 4 feet in length, terminating in racemes of flowers 9 inches to 10 inches long. The very numerous flowers are nodding, pouch-shaped, pale lilac in colour, spotted with purple. It is propagated by seeds, cuttings, or division, and is best grown in an intermediate house until the flowers expand, when it can be transferred to a cooler house. A mixture of fibrous loam, peat, leaf-mould, and sand will be found a suitable compost. It belongs to the natural order Scrophulariaceae, and very few species of the genus are in cultivation. The one most generally grown is *A. salicariaefolia*, a blue, South American species, and the white variety *alba*, seeds of which are usually sold under the name of *A. grandiflora alba*. It is a graceful, free-flowering perennial. Owing to the ease with which it can be raised from seeds, it can be treated as an annual. It grows 15 inches to 2 feet in height. If short, bushy plants are desired, the points of the shoots may be removed several times. Planted outside in summer if the weather is favourable, it flowers freely.—A. O.

A new bog plant (*Lysimachia japonica*).—A good planting of this new Loosetrife now flowering finely by waterside promises well for its future popularity. It is a vigorous species now 3 feet high, but likely to double that height when fully established, forming a sheaf of hairy, broadly lance-shaped foliage, and bearing several compound racemes of star-shaped yellow flowers, each as large as ashilling, and zoned with a blood-red ring at the throat. The flowers are somewhat fugitive, but borne in such quantities that the raceme is always well filled. It is a pretty plant, more like a perennial Phlox than anything else, and its yellow colouring is all the more valuable in a waterside plant because at its season of flowering there are very many rose and purple shades among the Lythrums that need to be separated by some contrasting colour. Another new species (*Lysimachia Fortunei*) is also pretty, but too near *clethroides* and *barystachys* in its white spiky inflorescence to be considered a real gain. *L. japonica* flowers naturally during July and August, and it stands surprisingly well in a cut state for a Loosetrife. Its colouring appears a little dusky when closely inspected, but it is bright enough when grouped by the water.—G. B. M.

The Royal Horticultural Society.

The council of the above society, on the suggestion from the official representatives of several of our Colonies, have decided to hold four further exhibitions of Colonial fruits and vegetable products, lasting two days each, on December 5 and 6, 1905, and March 22 and 23, June 6 and 7, and December 4 and 5, 1906. The object in fixing these dates is to suit as far as possible the season which is most likely to find the produce of Canada, British Columbia, and the West Indies, of India and the Cape, and of Australia, Tasmania, and New Zealand, in the greatest perfection in London. Opportunity is afforded for each Colony to make collective exhibits in addition to the exhibits of individual firms. The Agents-General and other authorities are most kindly rendering every assistance, and we trust that both growers and shippers will do their best to send in exhibits worthy of our Colonies, and to show what can be produced for the home markets. No entrance fee or charge for space is made, and tabling is also provided free of expense. If desired any produce may be consigned direct to the society, and it will be stored in the cellars at Vincent Square and staged by the society's officials, but the secretary cannot undertake to repack and return any exhibits. Medals and other prizes are offered by the council in each of the many classes, which include Apples, Pears, Pine-apples, Mangoes, Grapes,

Oranges, Limes and other citrus fruits, Peaches and Nectarines, Plums, Melons, Tomatoes, Nuts, Yams, and various tubers, and other Colonial fruits and vegetables. There are also classes for preserved fruits and vegetables, whether dried, bottled, tinned, jellied, or otherwise treated. The schedule and other particulars may now be had of the secretary, Royal Horticultural Society, Vincent Square, Westminster, S.W.

Some good bedding Pelargoniums.—Fronting historic Kensington Palace are some good beds of Pelargoniums, crowned by fine masses of white Marguerites. Amongst the former King Edward VII., a variety which has been used here for the first time this season, is an improvement in every way on Henri Jacoby, whether for pots or bedding; flowers glowing crimson. The well-known West Brighton Gem is another striking bedder, well worthy of a note, and very effectively used here.—Quo.

A new shrub (*Sophora viciifolia*).

This comparatively new and quite rare shrub was finely in flower at Kew in June. It is a characteristic shrub, forming a much-branched specimen, and flowering freely when not more than 3 feet to 4 feet high. The Pea-shaped flowers, about half an inch long, are white, suffused with lavender-blue. There is some variation in the colouring. It is a native of some parts of China, and is said to be very plentiful in Yunnan, where large stretches of almost barren soil are covered with it. At Kew it has so far proved hardy.

Peas and thrips in hot weather.

During hot and dry weather much havoc is caused by these insects, especially to Peas that are young and green and beginning to bloom. It is often these that are the most valuable. Much attention is given to watering and mulching, which are of no avail if this pest is allowed to get a firm footing before being taken in hand. I have had much trouble with it in years gone by. It is a simple matter to have an abundance of Peas during early summer, but not so from August onward. This year I observed thrips attacked some Marrow varieties quite early in the season. Frequently this is not noticed until the young tips of the growths and leaves begin to curl, and by this time they have made a lodging. Unless something is done the growth is soon arrested and the young pods are injured. For several years I have used an insecticide, applying it in a warm state, and with force to send it into the tips of the shoots and on the under sides of the leaves. This is

applied, when the weather is hot and dry, early in the morning or evening, in a fine spray from a syringe, about three times, and the wash being cheap the cost is but little. When the growth has ripened all is safe. Where the soil is hot and dry the plants need more attention.—DORSET.

The newest varieties of Potatoes to the number of forty are being tested this year by us. Golden Wonder, Highlander, Conquering Hero, Eldorado, Sim Gray, Pearl, Diamond, Money Maker, Duchess of Cornwall, and many other well-known varieties are making fine growth and looking well. Mr. Colin Macpherson's three new varieties, introduced by us last year, namely, The Macpherson, New Victoria, and Early Champion, are looking remarkably well, and exceedingly good reports are being received from the south. Mr. Massey, Spalding, who visited



A NEW SHRUB (*SOPHORA VICIIFOLIA*) IN THE ROYAL GARDENS, KEW.

our trials a few weeks ago, and who is growing these varieties, is delighted with their appearance both here and in the south.—W. P. LAIRD AND SINCLAIR, LIMITED, Dundee.

New lawn plant.—In many parts of California, Florida, and other States the lawns are not as fine as in the eastern sections of the country. The dry spells in these regions are so protracted that the grass is oftentimes killed outright. Several substitutes have been used with varying results. Among the most successful is a plant belonging to the genus *Lippia*. Even this plant, however, needs attention to carry it over dry periods. A plant recently forwarded from South America promises to supply the demand in this more or less arid region for an

ideal lawn plant. This interesting plant belongs to the genus *Desmodium*. It has very deep rooting habits and manages to keep alive and retain its bright green colour during very protracted droughts. The plant has small trifoliate leaves and they grow very close to the ground. It never needs trimming. A supply of these plants is being propagated in the greenhouses for trial.—*Florists' Exchange (New York)*.

Perthshire Horticultural Society.—In connexion with the centennial show of the Royal Horticultural Society of Perthshire, to be held in Perth on the 17th, 18th, and 19th inst., the Perth Town Council agreed last year to present a cup to the society. At a meeting of the Lord Provost's committee, held on the 22nd ult., the subject of the value of the cup and conditions came up for consideration, and some feeling was engendered by an amendment to a proposal that the cup should be of the value of £15 15s., and that it became the property of anyone winning it three years in succession. The amendment, evidently based on entire disapproval of the cup, was that the cup cost one shilling. After a warm discussion the proposal that the cup be of the value of £15 15s. was carried by seven votes to two.

NOTES ON LILIES.

LILIUM LOWII.

(SYN. *L. BAKERIANUM*.)

CONSIDERABLE variation was to be noted among the several plants of this Lily shown at the meeting of the Royal Horticultural Society on the 18th ult., so much so, indeed, that one or two well-marked varieties might have been selected therefrom. Though it is now over a dozen years since *Lilium Lowii* first flowered in this country, it is still a decidedly uncommon Lily, but a very pretty one, and more amenable to cultivation than some other species. As with *Lilium nepalense* and *L. sulphureum*, we are indebted to Messrs. Low for the first flowering examples of *L. Lowii*, though specimens of it were, I believe, previously collected by S. H. Collett. Briefly, *L. Lowii* may be described as pushing up a slender stem to a height of 2 feet to 5 feet, or thereabouts. It is rather sparingly clothed with narrow, bright green leaves. The flowers are more or less bell-shaped, with the tips of the segments reflexed, but in this latter character there is a certain amount of variation. They are a little over 3 inches long, and as much across the expanded mouth, white tinged with green on the outside, and in the interior spotted with purplish crimson. This spotting is a particularly variable feature, though as a rule it is limited to the lower half of the three inner segments, but this is by no means always the case. I have come across instances in which the inside of the flower was nearly covered. Though, like *L. sulphureum*, a native of Upper Burma, it is more delicate in constitution than that just-mentioned kind; indeed, *L. Lowii* must be regarded, at least as far as my experience extends, as essentially a greenhouse Lily.

A NEW LILY.

(*LILIUM SUTCHUNENSE*.)

This comparatively new and very uncommon Lily was shown in good condition by Messrs. Veitch at the Royal Horticultural Society's meeting, on the 18th ult., when it was given an award of merit. Though rare it is

by no means the first time it has flowered in this country, for this species was figured in the *Botanical Magazine* from plants which bloomed at Kew in 1899. In a paper read at the Lily conference in 1901, by Mr. Baker, on "Descriptions of the new species and principal varieties of Lily discovered since the publication of the monograph of Elwes (1880)," *Lilium sutchunense* is thus alluded to: "Bulb globose, 1½ inches diameter, scales ovate. Stem slender, 2 feet to 3 feet long, scabrous, leafless towards the base. Leaves moderately dense towards the base, ascending, linear, the largest 4 inches to 6 inches long, one-eighth to one-sixth of an inch broad. Flowers one to four, on long spreading peduncles subtended at the base by small leaves, horizontal when expanded. Perianth bright scarlet 2 inches long, copiously spotted inside with dark brown; segments spreading from below the middle, oblong lanceolate, one half to five-eighths of an inch broad; nectary papillose. Stamens much shorter than the perianth; anthers linear, one-fourth to one-third of an inch long; pollen dark yellow. Style three to four times the length of the clavate ovary. Western China; province "of Szechuen. Collected both by Prince Henry of Orleans and Father Farges. The *Botanical Magazine* figure was drawn from plants flowered at Kew in 1899, the bulbs of which came from M. Vilmorin. Allied to *L. Maximowiczii* and *L. pseudo-tigrinum*." The specimens as shown suggest that this Lily will be more suitable for growing in pots or for associating with the choicer species than for cultivation in the open border. H. P.

HINTS ON TABLE DECORATION.

[In reply to "Ballantrae."]

IN the space of a brief answer to a question like this it is difficult to compress a reply that will be of much service to our correspondent. The question is a large one, and to answer fully would fill many columns of THE GARDEN. But there are a few points which stand out clear and well defined which must be observed and strictly adhered to before success in the beautiful art of floral decoration can be achieved. The first lesson to learn is not to overweight the table with too great a profusion of flowers. Do not have too many stands of flowers on a table, and take care not to overcrowd the flowers into the stands.

Supposing Roses, Carnations, or any other flowers in season are to be used, should the vase be a small one, it will be far better to place a single perfect and beautiful Rose with ample and healthy foliage of its own than to crush in two or three. The individuality and beauty of each Rose are lost in a poor and meaningless bunch of Roses. The same with other flowers. Give the individual blooms of any kind of flowers which may be used a chance to display the grace and elegance they possess both of flower and foliage. Of course, if a larger vase be used, three or four or more specimens may be used, but avoid overcrowding.

The question of colour or harmony of colours is most important, and must receive careful consideration. When the table is small it is far better to use one colour only. Again quoting the Rose, one of the prettiest little tables we have ever seen was the first prize decorative table at the National Rose Show in London last year. The flowers used were a single white Rose with a rich centre of a profusion of golden anthers, the foliage used being its own. Again, the other day at the Sweet Pea show in London, the first prize

table was decorated by Peas of two shades of mauve only—light and fairly dark—garnished with sprays of *Asparagus tenuissimus*, a beautiful arrangement it proved for daylight, but for an evening table it would have been a disappointment, and this must always be borne in mind as colours such as blue, yellow, and mauve always look well by day but not by night.

With regard to large tables it is not always possible we know for gardeners to have sufficient flowers of one colour to decorate the tables with night after night for a month or two at a time. Neither is it necessary; but in all cases, whether the tables be large or small, harmony in colours rather than contrasts must be aimed at. The question of the harmony and contrasts of colours is well worth the close study of every gardener who wishes to excel in this part of his duty. As some few examples of harmony in colour, we may mention that shades of crimson, scarlet, rose, pink, and white go well together; the same with purple, blue, mauve, and lavender to white; the same again with all shades of bronze and yellow to white.

Where there is sufficient room a delicate tracery of some foliage arranged in a pretty way adds much to the charm of any table. There are many subjects which may be used with pleasing effect for this purpose, including Maiden-hair Fern, the finer Bamboo foliage, the beautiful bronze *Selaginella selaginoides*, and in the autumn we have ample selections in the rich colourings of the foliage of our hardy trees and shrubs; but perhaps the best of all are sprays of one of the many varieties of the useful *Asparagus Fern* introduced of late years. Blossoms of some delicate or choice flowers laid sparingly on these wreaths of foliage add much to the brightness and beauty of a table at night. We believe a book is being written by Mr. Brotherston, Tynningham, N.B., on this subject.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

ROSE CLIO AND A QUESTION.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I notice that in a recent number of THE GARDEN a correspondent advises another to cultivate Clio as a first-rate Rose. He omits to mention that Clio is one of the thorniest of trees, requiring a stout glove to handle, that it comes chiefly in clusters, and that it suffers much damage from sun, rain, and mildew. On these grounds I put it very low down on my list of 100, so greatly do our tastes differ.

May I propose a question—it may bring some useful replies—What Rose answers to this description? I know of only one Rose, but there may be many others. If you will be good enough to insert this enquiry, I, and perhaps many of your readers, may have our gardens enriched. 1. It has a branching habit. 2. Every shoot is crowned with a flower. 3. It does not hang its head, but is very erect. 4. It opens well and is full. 5. It is very vigorous. 6. It is as good in autumn as in summer. 7. It is not subject to mildew. 8. It is never burnt by the sun. 9. Nor spoilt by the rain. 10. Its colour is brilliant and does not change. 11. It is sweetly perfumed. 12. It is sometimes large enough for exhibition.

W. CHAPMAN.

Eldene, Sandhurst Road, Tunbridge Wells.

BAMBOOS FLOWERING.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I planted a small plant of *Phyllostachys boryana* this year, and it is flowering from every little shoot all over. Messrs. Veitch tell me that this species is also flowering in their nurseries.

In addition to the above, three old plants of *Phyllostachys Henonis* are also flowering, but two of them have thrown up very strong young shoots, which are about 12 feet high. It would be very interesting to know if these two species are flowering at Kew, and in the many private collections in the country.

Forres.

N. B.

ROMNEYA COULTERI.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I send you a photograph of my *Romneya Coulteri*, which has been a mass of bloom for the past three weeks. The plant is growing on a wall facing south-east, and has been in its present position for eight years since I planted it, a small plant out of a 4-inch pot. It is now over 12 feet high, about 5 feet wide, and blooms profusely every year. The soil of my garden is light, thin, poor, and hungry, and the plant has never had any assistance in the way of manure of any sort since it was planted.

A. J. SINCLAIR.

19, Sydney Avenue, Blackrock, County Dublin.

CLIMATE OF NORTH WALES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—It may interest your readers to hear how mild the climate is in many parts of North Wales. I have been staying recently at a house near Towyn, Merioneth, where the walls of the stables were covered from base to roof with the deliciously fragrant *Mandevilla* (usually grown in hot houses), together with the lemon-scented *Verbena*, red and white *Fuchsia*, and *Myrtles*, all in full bloom. The *Mandevilla* in winter is protected by matting.

Rhagatt, Corwen.

S. LLOYD.

TREES AND SHRUBS.

HYDRANGEA PANICULATA GRANDIFLORA.

EVERY garden should contain this plant, as it flowers during August and September, and helps to brighten what are otherwise rather dull months. It is an easy subject to grow, and is also very amenable to special treatment for producing larger and better flowers than it bears if let alone. When allowed to grow at will the panicles of bloom are small, but many in number, and are more useful for cutting than the larger ones, which are obtained in the following manner: In the spring young, strong plants are cut back to within two or three eyes of the old wood, and when the young growths are about 2 inches long about one-half of them are pulled off, and a fortnight later all the weakly ones of those left are removed, leaving from four to twelve shoots on a plant according to its age and size. When the flower-spikes begin to show in July, each shoot should be fastened to a light stick to keep it from being broken by the weight of the flowers. Good soakings of clean water, with an occasional dose of liquid manure or a good mulching, should be given during dry weather, and if the work is properly carried out there will be strong, pyramidal spikes of flower upwards of 18 inches in length by 6 inches in diameter at the base to last in flower for some weeks.

Bagshot, Surrey.

J. CLARK.

SOME SUMMER - FLOWERING SHRUBS.

To readers of the gardening journals the name of Veitch is not only an historical one, but one that seems to carry with it an authority for all that is of good report in horticulture. It is therefore that residents in the south-west of England, and especially in the counties of Devon and Cornwall, feel an amount of satisfaction in the fact

that the house of Veitch practically originated in the neighbourhood of Exeter, and at the present time is worthily represented by Mr. P. C. M. Veitch, the head of the firm of Robert Veitch and Son in that city. It is probably well known to most readers of THE GARDEN that Mr. Veitch is not only an enthusiastic lover of plants generally, but that he has a special liking for trees and flowering shrubs, a branch of horticulture that has of late attracted a considerable amount of attention. In a recent visit to the principal nursery ground at Exeter—for they are situated in different parts, the trial grounds being at Exwick and the collection of forest trees at Exminster—I saw a number of attractive and well-grown plants, among them being the following:

Senecio Greyi.—A compact shrub, with silvery grey foliage and numerous pale yellow flowers. It is one of the many Composites which have come into favour of late years, and is certainly a plant worthy of general culture.

Phlomis fruticosa, known as the Jerusalem Sage, is a half-shrubby plant belonging to the natural order Labiateæ. It grows from 3 feet to 4 feet high, has whorls of yellow flowers, and leaves and stems covered with white down. In

Escallonia langleyensis we have a splendid hardy evergreen shrub; the bright glaucous green of the leaves is alone a strong recommendation, but when covered with the numerous rose-carmine flowers with the star-like yellow stamens the plant is seen to perfection. Added to this, the flowers when expanded last a considerable time before falling. Altogether the plant has strong recommendations for more general culture. It is a hybrid between *E. philippiana* and *E. macrantha*. The former species (*E. philippiana*) was also flourishing and flowering at the time of my visit. It has minute deep green leaves and pretty little star-like flowers, white, tinged with pink. Pretty as this is, it is eclipsed by *E. pteroclada*, the foliage of which is a brighter green, and is prettily arranged along the branches. The flowers, which are white and very numerous, have their petals recurved. Altogether it is a very attractive plant.

Swammerdamia Antennaria is a very beautiful Composite plant, the bunches of white flowers being distributed among the leaves, the upper and under surfaces of which are of two distinct shades of green. The flowers have a Hawthorn-like scent.

Phyteuma orbiculare.—This beautiful little Campanulaceous plant, which grows to about 1 foot high, bears globular flowers, as its name



THE CALIFORNIAN POPPY (*ROMNEYA COULTERI*) IN A DUBLIN GARDEN.

indicates, of a beautiful violet colour, which is intensified in bright sunlight. In

Baptisia australis we have a splendid leguminous shrub, bearing an abundance of deep blue papilionaceous flowers, toned down to nearly white at their edges. Both flowers and foliage have much to recommend them. The well known

Carpenteria californica with its beautiful white flowers was also much in evidence, as was also

Ozothamnus rosmarinifolius with its dark green linear Rosemary-like foliage and mass of small white scented flowers. The dense flower spikes of

Syringa japonica give to this attractive shrub the appearance at a distance of a very free flowering *Spiræa*. Its freedom of flowering and its habit generally, together with the perfume it emits, make it a valuable flowering shrub. A very pretty little leguminous plant is

Indigofera gerardiana floribunda; the numerous small mauve flowers and the small leaflets give it a character quite its own.

Stephanandra flexuosa is a species of graceful and striking habit, arising from the form of its leaves, its slender stems, and the crimson colour of the latter.

Spiræa Foxii carries with it a dense covering of white flowers, the stamens projecting beyond the petals lend to the whole plant a light feathery appearance. In

Atriplex canescens, the flowers themselves have very little attraction, being of a greenish yellow tinge, but harmonising as they do with the foliage, which is of a somewhat more decided green, the plant has a peculiar interest. J. R. JACKSON.

Claremont, Lympstone, Devon.

A VICARAGE GARDEN.

SHORWELL, ISLE OF WIGHT.

THE garden of the Rev. G. E. Jeans, the enthusiastic Rose grower and exhibitor, is remarkably situated on a slope of the downs, with the beautiful church almost in it at the foot. From the summer-house at the top, with a sugar-loaf roof, there is a fine view of the sea, which is about 2½ miles off. There are some very fine trees in the lower part of the garden—the Araucaria (see illustration), over 40 feet high; close to it an immense Deodar of great girth, forming a splendid dining-room in summer (even in a heavy shower the rain hardly gets in); then a very massive and old Tulip Tree (*Liriodendron tulipiferum*); an immense Cupressus macrocarpa behind the house, which has had to be tied with iron bands for safety in the strong south-west gales; a great Weeping Ash; a fine-shaped *C. lawsoniana*, and others. All these are old, we cannot say how old, but some more have been added which are becoming fine trees—a Mulberry, a Medlar, a Brown Turkey Fig, an Almond, and a splendid *Pyrus Malus floribunda*.

The garden front is extremely picturesque. The house is partly old, Elizabethan or Jacobean, with heavy mullions at the north end, but constantly added to or altered since. The best times for the garden front are about Whitsuntide, when the Wistaria and the yellow Banksian Rose are out, and in October, when the *Vitis* (*Ampelopsis*) *Veitchii*, which covers almost the whole front, is gorgeous in the extreme.

Mr. Jeans has about 820 Roses, about 470 of which are exhibition sorts. These are nearly all on the slope; indeed, the garden has hardly any level. Teas and Hybrid Teas are on one side, Hybrid Perpetuals on the other, grouped according to colour, beginning with blush and pink up to the very darkest, such as Abel Carrière or Sir Rowland Hill. In the upper garden is the nursery, where the budding is done. Plants are transferred as needed to the show beds. Mr. Jeans prefers standards for the majority of varieties, and has been for years increasing the proportion of them to dwarfs. But there is a considerable number of standard dwarfs, made by cutting away all other shoots when a dwarf of a strong kind (such as Margaret Dickson, Caroline Testout, Jean Liabaud, Dr. Andry, &c.) has an unusually vigorous shoot, and then letting it bloom or grow out only in the head. These often give fine blooms. All but expert rosarians imagine that they are standards.

The soil is good, but too light, and needs additional nourishment. It is a very light loam, with freestone underneath it at a small depth. It needs no hoeing. It never gets really dry. In a moist climate like this, however long the time without rain, the soil an inch or two down in any properly fed garden is sure to be fairly moist. Owing to the amount of moisture in the air, it is not worth while growing here any Roses that have a tendency to "gum." Such as Boule d'Or, Earl of Dufferin, &c., are better left out. Mr. Jeans has never yet had even a fairly good Souvenir d'Elise Vardon, and though a few people in the island have done



A ROSE GARDEN IN THE ISLE OF WIGHT.

fairly well with Her Majesty, it is probably on sandier soils.

One of the greatest sights in the garden is an immense Crimson Rambler growing on a cage for bush fruits. This enormous mass of crimson can be seen half a mile away, and people have often wondered what it is. The garden has no wall, but there is a picturesque stone-walled garden close by which is occupied by the gardener, a genuine surviving old islander. There is a quiet charm in such a garden as this with its Roses, fruit trees, and picturesque old Araucaria. It is the garden of one who loves flowers.

THE FLOWER GARDEN.

PROPAGATING THE VIOLETTA PANSIES.

WITH the object of planting in their permanent quarters in October next the Violettas we have already commenced to insert cuttings. The beautiful tufted character of these plants enables the grower to utilise almost every available piece of growth for the purpose of perpetuating the different stocks. At the time of writing the pieces that were planted last year, and similar clumps that were placed out in their flowering quarters last spring, are represented by ideal tufts, and from these we are able to procure an abundant supply of cuttings of almost the whole of those now in commerce.

These beautiful little gems of the garden only need to be seen in full blossom to be appreciated by those who realise how valuable the Violettas are for edgings, or, what is better, for the rock garden. For the last six weeks our plants have been bright with flowers, and in the hope that the newer sorts as well as the older ones may become better known, those interested in the perpetuation of this new race of plants should see to the insertion of their cuttings without delay.

Autumn planting has many advantages. If planted sufficiently early in the month there is ample time for the young plants to become established, and in ordinary seasons time for them to make considerable growth before the hard weather sets in, so that by the spring-time each little piece should be a pretty little tuft. It is astonishing what progress they make once the spring season is with us, the smallest tufts in the course of a few months developing into plants from 8 inches to 12 inches or more across, and by the middle of April at the latest they should be freely studded with dainty blossoms. Should growers be desirous of procuring stock of a more sturdy and still more satisfactory character, the old plants may now be cut back, and some light gritty soil worked in the crowns with the hands. These same tufts in the course of a few weeks will be covered with newly-developed growths, and when these are some 2 inches—more or less—long they may be detached for the purpose of providing cuttings. There may be growers who wish to save themselves the trouble and time necessitated in the perpetuation of the stock by cuttings, and who would prefer to increase their stock by division. At almost any time these plants may be lifted and

divided up into numerous pieces, and where speedy results are desired this is a method of increasing stocks that has advantages.

No one who has seen a really representative display of these flowers set up in sprays or plants growing in the garden can fail to appreciate the value of the Violettas in the hardy flower or rock garden. They are a race of plants with great possibilities, and—unlike the larger forms of the Tufted Pansies, the growths of which are often elongated and unwieldy, and which also carry blooms of large size, though far from interesting in many instances—only need to be taken in hand to ensure for them perpetual cultivation. It is a great mistake to insert cuttings in cold frames at this somewhat early period. All forms of the Tufted Pansies succeed better when propagated early and by being inserted in a cutting-bed made up in the open. No better position for a cutting-bed can be selected than that with a northern aspect, or, failing this, a quarter of the garden where a shady position can be given them.

Loam, leaf-mould, and coarse sand in equal quantities should comprise the compost for the cutting-bed, the two first-mentioned ingredients being passed through a sieve with a half-inch mesh. The whole of the ingredients should be well mixed and spread over the allotted quarters to the depth of 4 inches to 6 inches, and made firm and absolutely level on the surface.

It is a good plan to firm the cutting-bed by the aid of boards, which should be carefully placed in position and firmly pressed. Subsequent to this the cutting-bed should be given a thorough watering, using a fine-rosed can for the purpose. Two or three applications of clear water will thoroughly moisten the soil. Left thus for a few hours the water will be fully absorbed by the soil and rendered in a fit condition in which to insert cuttings. Insert the cuttings in rows, starting each row first with a label with the name clearly denoted thereon and the date of propagation. Cuttings should be inserted about 2 inches apart in rows, and the rows 3 inches apart. It may seem superfluous to emphasise the importance of pressing the cuttings firmly at their base, but all true propagators know this is essential if the operation is to be successful. Deal with one variety at a time, so that there may be no risk of the stocks becoming mixed. The growths of the Violettas are in many cases so similar that unless this precaution be taken the propagator may easily get his stocks mixed. It is for this reason that one needs to emphasise the necessity for careful labelling previous to dealing with the respective varieties.

In the cool position given them it will be unnecessary to shade the cuttings from the bright sunshine which we invariably experience at this season, and if only the cutting-bed be occasionally watered by the aid of a fine-rosed can and the surface soil be kept free from weeds, however minute they may be, the rooting process should take place within a month, and delightful little pieces ready for transference to their flowering quarters should then be ready by the first week in October.

In addition to the dozen or so sorts that are now generally catalogued, there are others which are to be distributed in the near future; promising seedlings, with some new and distinct marking, each one possessing

points of merit, and also with the beautiful habit and wiry constitution peculiar to these plants. These will enrich our collections very soon, as a new set is being prepared for distribution.

Highgate, N.

D. B. CRANE.

THE ROSE GARDEN.

ROSES IN THE GARDEN.

A PART from growing fine specimen blooms there is a great field open to lovers of Roses. Grown in various ways as beautiful garden plants, and now in their rich profusion no one will decry their claim to universal popularity. Large old plants of Gloire de Dijon and other nearly related Teas, also Cheshunt Hybrid, William Allen Richardson, and some of the older Hybrid Perpetuals, as General Jacqueminot, Alfred Colomb, and others equally well known, have been most beautiful with me, and the same is true of the pink Moss and Celine Forestier, which planted side by side flower about the same time and form a fine contrast to each other.

Paul's Carmine Pillar was the first Rose to open, its rich colour and free-flowering nature making it a great favourite. Crimson Rambler will follow it closely, but though I am willing to admit this makes a fine show, it is certainly less beautiful in the open than under glass, owing to the peculiar tint of the foliage. The copper and yellow Austrian Briars and the Penzance Sweet Briars, such as Lord Penzance, Meg Merrilies, and others, are showy and sweet, while the delicate flowers of the rugosa type are just at their best. There is a freedom about these single and semi-double Roses that is lacking in the very double kinds. Souvenir de la Malmaison, as I have it here, is a fine climber, the flowers deeper in colour than in the old variety. Climbing Captain Christy,

on the other hand, is a fine summer Rose, and very beautiful in its pale flesh tints. H.

ROSE AGLAIA.

THIS is a splendid Rose, particularly free-flowering, and one that is suitable either for training over a pergola or for forming a natural untrained bush, as shown in the illustration. Its bunches of pale yellow flowers are very pleasing, and are not so fleeting as some. Other free-growing Roses might be allowed to develop in the same way, and charming bushes would result. *Helène* is one that occurs to mind at once as being particularly suitable.

POLYANTHA ROSES AS DWARF STANDARDS.

THESE excellent miniature Roses, when budded upon hedge Briars from 12 inches to 18 inches high, make most lovely objects for standing singly upon the lawn or for planting in the centre of beds of this class. *Perle d'Or* when thus grown is charming; indeed, all the tribe would be suitable. *Mme. E. A. Nolte*, *Gloire des Polyantha*, *Perle des Rouges*, *Anna Marie de Montravel*, *Mosella*, and *Blanche Rebatel* should be given a trial in this way, and I am sure the desire would be to increase the number. It is so usual to see these Roses recommended for edgings to Rose beds, that one is apt to overlook the fact that there are other ways of making them useful. P.

ROSA FIMBRIATA (HYBRID RUGOSA).

ONE would take its flowers to be those of a finely-grown *Dianthus* were it not for the foliage. Its petals are not very numerous; usually about four rows compose the flower, but each petal is beautifully fimbriated, which is much accentuated by the edges of each one slightly turning upward. The outer row is almost pure white in colour, but the remainder are a delicate blush. Surrounding the stamens are three or four imperfect florets of a rich carmine-pink, giving a most artistic finish to a very uncommon Rose. It is not so free-flowering as many of the *R. rugosa* forms, but no



ROSE AGLAIA AS A FREE-GROWING BUSH IN THE ROYAL GARDENS, KEW.

doubt plants of it trained in pillar form would yield a larger quantity of blossom. Its foliage is a refreshing bright green and almost oval in form. It is said to be a cross between *Rosa rugosa* and the Tea Rose Mme. Alfred Carrière, and it certainly has much of the latter variety in its lovely foliage.

ROSE GLOIRE LYONNAISE (HYBRID TEA).

As a garden Rose this possesses considerable merit. There is something peculiarly attractive about its large expanded blossoms, they are not at all formal. In the bud state it is very lovely, the colour being pale lemon, and although not quite so refined in form as those of a Tea Rose, these buds make very serviceable button-

II.—THE GARDENS OF WARLEY PLACE.

(Continued from page 76.)

ROSE species are one of Miss Willmott's special branches of study. They are in abundance throughout the garden, but a great number are within the large enclosure devoted to plants for observation. Many of them are grown as tunnels, making pleasant shady walks. I may safely say that the gardens contain one of the best English collections of wild Roses and ancient types. Irises of the *Oncocyclus* group do fairly well; they are plants that we are unable to grow in Switzerland, and that are, in general, difficult or uncertain in England. We owe grateful acknowledgment to Mr. Hoog, the nephew of Mr. Van Tubergen, who has obtained by hybridisation from the *Oncocyclus* Irises a whole series of new Irises, much resembling them as to their flowers and colouring, but which are as easy to grow as the Flag Irises. This series is as yet in Messrs. Van Tubergen's trial grounds and at Warley only.

Leaving the plants for study, as of less interest to the general public, I turn to the garden for enjoyment and pictorial effect.

First, there is the Wall Garden; an enclosure with high walls, containing rare and tender hardy plants. The walls are furnished with scarce plants needing shelter, that

climb to the top. Among them are *Ceanothus Veitchii*, *Acacia dealbata*, which flowers every year, *Choisya ternata*, *Punica granatum*, *Piptanthus nepalensis*, *Jamesia americana*, *Solanum crispum* and *S. Wendlandi*; various *Buddleia*, *Lonicera*, *Jasminum*, *Cistus*, and *Grevillea*; *Clematis Sieboldi*, *Fremontia californica*, *Clerodendron Hookeri*, *Pæonia lutea*, *Buddleia Colvillei*, *Carpenteria californica*, and the rare *Berberis Fremonti*.

In the borders surrounding this well sheltered and protected spot, are collections of Lilies and Fritillaries in all their beauty. Crown Imperials grow 5 feet high; the Lilies of China, Japan, and the nearer

East, of the Alps and of North America form immense clumps and flourish amazingly. Hundreds of hardy species, *Dicentra*, *Dodecatheon*, *Dictamnus*, *Aster*, *Incarvillea*, *Potentilla*, *Primula*, *Amsonia*, *Verbascum*, *Spiræa*, *Phlox*, *Delphinium*, *Campanula*; an immense bush of Lavender, that looks as if it had survived from the time of the earlier gardening at Warley—all these succeed each other throughout the year, while the midmost space of the garden is devoted to the most precious bulbs.

The Water Garden, fed by a natural spring, stretches to the south of the park. Its edges are planted with several kinds of *Saxifraga*, *Cypripedium* and other Orchids, *Gunnera*, marsh-loving Ferns, *Astilbe*, various *Calla* and *Caltha*, *Menyanthes*, *Mimulus*, *Gentiana*, *Primula*, *Lysimachia*, &c., while from the water rise flowers of the newest and most beautiful *Nymphæas*. The whole is grouped with such excellent taste that one loses the sense of a garden artificially arranged. In addition to the *Nymphæas* one sees *Sagittaria*, the aquatic forms of *Ranunculus*, *Villarsia*, &c., &c., and in a sheltered bay the rustic chalet brought from the Swiss Alps, with its herdsmen's gear, its mountain furniture, and its porch covered with woodland Ivy.

In an extensive space outside the farm a large new kitchen garden has been made, with pergolas and a central tank, flower borders, and a rill and pond destined for the bog and water flora of all England.

The garden of perennial plants is in itself a botanical establishment of great value. It is in the old Warley fruit garden. Several of the old trees have been retained, and serve as supports for choice climbing plants. The whole space is a garden of flowers, with winding paths paved with flat flag-stones, after the manner of Japanese gardens; the stones being placed among groups of tufted plants, which frame them delightfully.

Rockwork, picturesquely arranged, and specially constructed for the reception of the plants that are to grow upon it, takes up a quarter of the garden. Here are to be seen the daintiest of plants, and here I was able to greet, in full bloom, some of the most charming flowers of the high Alps, such as *Eritrichium nanum*, *Rhododendron chamaecistus*, *Primula pedemontana*, *Cottia clusiana*, *minima*, *marginata*, *Monroi*, *spectabilis*, *Wulfeniana*; *Campanula Elatines*, *Zoyzii*, *cenisia*, *Allionii*, *excisa*, *mirabilis*, *speciosa*; *Ranunculus alpestris*, *amplexicaulis*, *parnas-sifolius*, *glacialis*; *Androsace glacialis*, *carnea*; *Astragalus monspessulanus*; *Gentiana Clusii*, *verna*, *verna alba*; *Silene acaulis*, *acaulis alba*, *correvoniana*, *Pumilio*, *Elizabethe*; *Meconopsis integrifolia*; *Anemone alpina*, *Baldensis*. The following plants are extremely flourishing: Several *Acantholimon*; the whole collection of *Æthionema*, the New Zealand Veronicas, *Calypso borealis*, that Canadian jewel, found there and in Finland. Even in the formally-designed part of the garden there are plants innumerable, giving flowers from beginning to end of the year; Hellebores in winter, then bulbs, Primroses, Saxifrages, Phlox, Verbascum, Delphinium, Campanula, &c. *Veronica Allionii* of Dauphiny is rampant around the flag-stones, and the air is sweet with all the Lilies.

H. CORREVON,

(To be continued.)



WHERE ROCK AND FLOWER MEET (IN MISS WILLMOTT'S GARDEN AT WARLEY).

holes. The rapid growth and regular flowering of every shoot are all desirable qualities in a Rose for growing in masses. It is not, however, a variety one should plant in exposed positions, for it is a tender Rose. The Briar is the stock for it, as it will not succeed at all on the Manetti, but it strikes freely from cuttings. This Rose is sometimes seen upon walls, and has probably been planted there instead of the more rambling Belle Lyonnaise, with which it is often confounded. The mistake has often turned out a happy one, and I can most certainly recommend it as a semi-climber. The wood is of a reddish colour, and but very few spines appear, the foliage rather small, of a rich green colour, combining to set off its beautiful blossoms to the best advantage.

P.

NEW & RARE
PLANTSODONTOGLOSSUM
CRISPUM MUN-
DYANUM.

THE only coloured illustration of this wonderful *Odontoglossum crispum* appears in "Reichenbachia," second series, Vol. I., page 10, where the following particulars are appended: "Only a few of the big blotched and spotted *O. crispum* out of many thousands of plants imported and established have appeared. The variety we here illustrate is one of these large spotted ones, and ranges among the kings of *Odontoglossums*. One often hears the question, How did such wonderfully blotched flowers appear, and what is their origin? Certainly 5,000 have to bloom before such a treasure is secured. They all come from one and the same district, and the blood of the allied species is not in them. Of this we are certain, the colour of this variety is particularly brilliant in the magenta-purple on the back of the flowers, and the intensity of the spots more so than in any of its rivals. This is, perhaps, accounted for by the greater thickness in the texture of the flower, the whole surface of which sparkles with a mass of crystals, these little prisms being the means by which the colour is, to a great extent, produced in flowers. It is curious how this magenta colour pervades most Orchids; in fact, it is rarely absent altogether unless in white varieties. Even in so-called blue Orchids, like *Vanda cerulea* and *Bollea*, the magenta is in the blue, and by comparison with the *Gentian*, they are quite purple. In other flowers the magenta is only to be found in a modified sense, and this is in very few indeed; and so one might state that the colour in Orchids is quite different from other flowers. It may account for some people objecting to this colour, being so rarely seen before Orchids came into general cultivation. It comes as something quite new, and, having no associations, it does not directly appeal to us, but of its beauty there is no doubt."

A RARE AND VALUABLE ODONTOGLOSSUM: *O. CRISPUM MUNDYANUM*.

I have abstracted the above in full, because it gives a very conclusive opinion as to the origin of the spotted forms of *O. crispum*. The blood of the allied species is not in them. Of this we are certain. This is contrary to the opinions of some of our Orchid experts to-day, who are bold enough to assert that all the spotted forms are of hybrid origin. I am ready to admit that we have better information and material at hand to-day than was procurable in 1892, when the above note was published, for the purpose of comparison.

We have also had a considerable amount of experience of variation amongst hybrid Orchids in our own gardens since then. I think, therefore, from the latter experience, we are quite as much justified in the argument that the blotched forms of *O. crispum* are the originals and the more variable and commoner kinds are the hybrids, if hybrids there be among them. If we are to compare and define origin, from the tuft or divided crest on the lip of the flower, we have only to examine flowers on the same raceme and observe the difference of one flower from another of the ordinary white varieties. This will suffice

which are white; but when the flowers are placed in such a position that the light may be reflected through the segments, it gives the whole surface of the flowers the appearance of having a rosy suffusion.

The accompanying illustration is reproduced from a photograph taken from a plant recently in flower in Mr. N. C. Cookson's garden, Oakwood, Wylam-on-Tyne, showing the flower's natural size. The plant was procured by Mr. Cookson from Messrs. Sander of St. Albans many years ago when it first flowered. In habit it is most remarkable for its long, narrow pseudo-bulbs. To select such a plant from amongst imported plants one would naturally conclude such a pseudo-bulb to be *O. lindleyanum*. It is thus a remarkable illustration of the uncertainty in the selection of plants for giving a particular variety in importations. For many years it was anything but a vigorous growing plant, but it now gives no difficulty in this respect, showing another instance of the longevity of Orchids and the possibility of retaining a plant under artificial cultivation for an indefinite period.

H. J. CHAPMAN.



PEACHES, PLUMS, NECTARINES, AND CHERRIES EXHIBITED BY LEOPOLD DE ROTHSCHILD, ESQ. (GARDENER, MR. JAMES HUDSON), GUNNERSBURY HOUSE, ACTON, AT THE ROYAL HORTICULTURAL SOCIETY'S CHELSEA SHOW IN JULY LAST.

GARDENING FOR BEGINNERS.

SIMPLE HINTS.

ABOUT RASPBERRIES.—The shoots, or "canes" as they are generally called, of the Raspberry are produced every year either from a perennial (i.e., living for several years) rootstock, or from the roots. In the latter case they are termed suckers. It is not advisable to keep the rootstocks of Raspberries more than six or eight years, but replant with younger canes, as from these finer fruit is obtained in greater abundance. The canes that develop one season produce fruit the next; thus while the canes of the past year are bearing fruits, others are developing to provide the following summer's crop. It will thus be apparent that the cultivator should endeavour to produce as many firm, healthy canes every year as can be comfortably found room for. When the fruit is gathered the canes upon which it was borne should be removed, for they are of no further value. Cut them off at their base, and draw them downwards to avoid injuring the remaining ones. If the Raspberries are grown against stakes, not more than six or eight new canes must be allowed to remain annually. When trained against horizontal wires, leave a space of several inches between each cane. Those shoots not required for fruiting the following year should be removed early in the season, soon after they make their appearance. The whole vigour of the plant may then be concentrated in developing only the necessary growths.

Summer Treatment.—This consists in destroying weeds by means of hoeing the ground, covering the surface of the latter with manure, and allowing no more than the necessary number of canes to remain. When the fruits are swelling, if the weather is at all dry, a good watering will prove helpful. As above mentioned, after the fruits are gathered, cut away the old canes so that the younger wood may not be interfered with. In the autumn shorten back the strongest canes of those that are to bear next year's crop of fruit to about 5 feet, less vigorous ones to, say, 4 feet, and the remainder to about 3 feet. Such a method prevents overcrowding.

Wall Plants of Bright Colour in Flower from end of July until September.—In a recent number of THE GARDEN, among the notes "Gardening for Beginners" it is mentioned that the rockery is bright with flowers. Might I ask for a list of alpine plants suitable for growing in a wall in flower during August and the end of July. My wall has been gay up till now, but, excepting a few Pinks (single), Dianthus Napoleon III., and Hypericum reptans, there is little else blooming.—K. [There is no excuse for dull wall gardens directly the spring and early summer-flowering plants have finished blooming. In answer to your correspondent's ("K.") request for a list of flowering plants for the time mentioned, I subjoin the names of plants which I have found most satisfactory. Some of these would bloom towards the end of July, while others may not appear till August, or even September: Polygonum vacinifolium, Plumbago Larpetae, Zauschneria californica, Platycodon Mariesii, Sedum bridgmanii, S. kamschatcense, S. k. variegatum, S. monstrosum, S. corsicum, S.

spurius, S. s. sibiricum, Hypericum ægyptiacum, Frankenia laevis, Lippia repens, Pterocarpus Parnassi, Carlina acaulis, Enothera pumila, Antirrhinum glutinosum, Campanula portenschlagiana major, Linum arboreum, L. narbonne, Thymus azureus, Hieracium villosum, Nepeta Mussini, Scutellaria alpina, Calandrinia umbellata, Convolvulus mauritanicus, Linaria alpina, Nierembergia filicaulis, N. frutescens, Oxalis floribunda, O. valdiviana, Statice spathulata, Tunica Saxifraga, Villadenia triloba, Umbilicus chrysanthus, Sempervivum arachnoideum, Campanula rhomboidea alba, Corydalis ochroleuca, Echeveria Purpusi, and Inula ensifolia.—F. W. MEYER, Exeter.]

The Chimney Campanula.—One usually sees this charming Bellflower (Campanula pyramidalis) grown in a greenhouse, and a very beautiful display it makes there. This year, however, I have grown it out of doors and it has proved successful, and for the past fortnight it has been much admired. I have both the blue and the white varieties, and the tall straight shoots have

of flowers. One could not wish for a more satisfactory Carnation in the border. Agnes Sorrel, dark crimson, is another good variety, and should be in every collection. Richness, a yellow ground fancy, is one of the best of its class. Rosina, rich rose, is also good. Miss Audrey Campbell is an excellent yellow.—T.

Freesias.—To have these delightful sweet-scented flowers in midwinter the bulbs ought to be potted now. Anyone with a small greenhouse ought to grow a few, for they are of quite easy culture. First sort the bulbs, placing the large ones together and the small ones together. Unless this is done the pots, when the plants are in full growth, will present a very uneven and patchy appearance. Some of the growths will be in flower, others will not. Having sorted the bulbs and selected the pots, those of $4\frac{1}{2}$ inches diameter (commonly known as 48's) are most suitable, the latter should be filled to within about $1\frac{1}{2}$ inches of the rim with turfy soil two-thirds, leaf-soil one-third, and plenty of silver sand intermixed. Place the large flowering bulbs about $1\frac{1}{2}$ inches apart, and the smaller ones rather closer. Cover the bulbs with so much soil as to fill to within half an inch of the pot rim. The best place for them is a cold frame, or they may be kept out of doors for some time yet, providing heavy rains can be kept off. As colder nights approach they ought to be taken into the greenhouse and kept there till they flower. Freesias do not like a warm atmosphere; in fact, under such conditions they make weak growth and flower badly. It is important to give them plenty of air and keep them near the light. They need very careful watering until the growths are strong, otherwise the latter may damp off.

Carnations from Seed.—Although most gardeners like to sow their Carnation seed earlier than this date, it is not yet too late to do so. Last year I sowed seed in August, and this season have been rewarded with a splendid lot of flowers. Carnations grown from seed flower much more freely than those grown from layers, and if one gets seed from a good source one can always rely

upon the plants producing good flowers, and a large percentage of double ones. No time should be lost in sowing the seed, for it is important that the seedlings should be able to make good progress before the winter sets in. Of course the reason for sowing the seed early in the season is to get good strong plants before the warm days are over. It is very evident that plants which are already well rooted will pass through the winter better than those which have made little or no growth. If the seed is sown at once, however, the plants will have plenty of time to make good growth before cold, dull weather sets in. I have just sown my seed in a largeshallow box, having first put some rough turfy soil in the bottom for drainage (there is also a hole at the bottom of the box) and filled to within 1 inch of the rim with finely-sifted sandy soil. The seeds were sown thinly in this and very lightly covered with finely-sifted soil. I covered the box over with cardboard. This keeps the soil moist and dark, and thereby assists germination. I should mention that the soil ought to be made moist



ONE YEAR OLD RASPBERRY CANE IN FRUIT. CUT THIS OUT AFTER GATHERING THE FRUIT.



CURRENT SEASON'S GROWTH OF RASPBERRY FOR FRUITING NEXT YEAR.

been simply smothered with flowers. The bees are very fond of the flowers of the Chimney Campanula, and it is probably partly owing to this that the individual flowers do not last long. What is lacking in this respect, however, is amply made up for by the great profusion of blossom. It is best to raise this biennial from seed sown in June or July for flowering the following year. When the old plants die down after flowering sometimes offsets are produced which will flower the next year. It seems a pity that so beautiful a plant should not be more often seen out of doors in the mixed border, for its tall chimney-like spikes of blue or white flowers are undeniably effective.—T.

Some good Border Carnations.—Among white varieties George Maquay is generally admitted to be the best. Another very good one is Purity, with thick, clear white petals and non-bursting calyx. I have had the most flowers from the rich pink variety Mrs. Nicholson. This is a vigorous grower, and gives an astonishing number

before the seeds are sown. If this is done, the box placed in a shady part of the garden and kept covered with a board or cardboard, no more water will be necessary for some days. If the seeds were sown thinly, the seedlings may be allowed to remain in the box for some weeks, until, in fact, it is thought they are large enough to be transferred to more suitable quarters. If you have a small garden frame no better place in which to winter them could be wished for. Place the frame on a bed of ashes (which might easily be saved and sifted) and make up inside it a bed of good, fairly light, and sandy soil. Plant the young seedlings in there in October, giving each plenty of room. In spring they may be planted where they are to bloom. Instead of planting them in the frame in this manner, the seedlings may be potted up and then wintered in the frame. Another method is to plant them in their permanent position outdoors from the seedling box, taking care to make up a good bed of soil for them. I should advise those who grow Carnations near large towns to winter them in the frames, otherwise a large percentage may be lost during the winter owing more to the damp and wet than cold.—T.

A Unique Edging Plant.—*Euonymus radicans variegatus* is one of the best light-foliaged plants for edging flower-beds where a neat, compact edging is wanted. It may be trimmed in with the shears when it gets too large. It is the hardiest of the evergreen *Euonymuses*. Not only is this a good edging plant, but it is also a splendid plant for covering a naked wall. It will cling as close as Ivy, and it grows fairly rapidly when well established.

Eradicating Weeds on Lawns.—So far as our experience goes, the best, cheapest, and easiest way of clearing large weeds, such as Plantains and Dandelions, from a lawn is to use Hayward's Weed Eradicator. It is an instrument about 2½ feet long, fitted with a sharp steel point at the bottom, which is worked by pressure from the top. There is a cavity inside to contain weed killer, and when the steel point enters the heart of a Plantain or Dandelion a small quantity of the weed killer is deposited, which kills the plant effectually. The instrument is very easy to manipulate; a lady could use it. All one has to do is to collect the dead plants, and, if the space must be filled with grass quickly, drop in a handful of soil and a few grass seeds, or in a short time the grass would grow over it. It should be borne in mind that to keep lawns in good condition some help in the shape of manure should be given occasionally. Basic slag may be usefully given in winter.

Sowing Hardy Annuals.—This is Nature's time for sowing, and seeds committed to the ground now under favourable conditions invariably make strong plants, which flower early and abundantly in spring. Among the useful things are *Silene compacta*, *Limnanthes Douglasii*, *Saponaria calabrica*, *Nemophila insignis*, *Clarkia* in variety, and *Godetias*. If intended to be transplanted during the autumn sow in rather poor land, moisten it thoroughly before sowing, and shade till germination takes place. Shirley Poppies should be sown where they are to flower, as they do not transplant very well, and must be sown thinly. Virginian Stocks and the annual branching Larkspur may be sown in broad masses anywhere where intended to flower. If permitted these plants will scatter the seeds where they flower and become naturalised. I have a gardening friend who has a semi-wild garden furnished in this way with plants that require but little care. He has masses of Larkspur, Honesty, Foxgloves, Evening Primroses, Antirrhinums, and such bulbous plants as Daffodils and Snowdrops and Primroses are scattered about everywhere in great profusion. Such a garden would not suit everybody, but to the busy man who cannot afford a gardening staff it is a great

pleasure, and when signs of exhaustion set in a top-dressing of rich compost is given, and things grow more freely again.—H.

Fallen Apples.—If anyone takes the trouble to examine the fallen Apples, it will be found that most of them either have a maggot inside now or the hole will be visible from which the maggot has made its escape to give trouble in the future. In spite of what has been written in the gardening Press and the leaflets bearing upon the subject, which have been so freely scattered by the Board of Agriculture, there is still much apathy among the smaller fruit growers as regards the damage done by the larva of the Codlin moth. The fallen Apples should be collected before the maggots have time to escape. Many might thus be destroyed, and early in the autumn, before the leaves fall, place greased bands round the stems of the trees, and renew the grease when it becomes dry and not sufficiently sticky to arrest their course up the tree. When the leaves fall and the buds are dormant, dress the trees with a strong insecticide either by spraying or using the brush on the larger branches. There are plenty of suitable washes on the market now. A dressing of newly-slaked lime sometimes will do a great deal of good; in fact, very few use enough lime in their gardens now, though it was not always so.

GARDENING OF THE WEEK.

FLOWER GARDEN.

GERANIUMS.—Make preparations for propagating these by getting the necessary stock of pots and boxes in readiness. I find the latter, made of 4-inch boards, 28 inches long by 6 inches wide and 3¼ inches deep (inside measurement) very useful and convenient, and by having all of uniform size they are better, and more economical as regards room, for arranging on stages and shelves during the winter and spring than if in various sizes, and as each contains the same number of cuttings it greatly facilitates the counting up of stock. These size boxes hold fifty to sixty cuttings according to strength and the time intended they should occupy them. Prepare the required quantity of soil—light sandy loam and leaf-mould—utilising the refuse from under the potting shed bench to mix with it, putting all through a coarse sieve to clear of corks and rough material; these will come in useful for bottoming the boxes. Choose cuttings that are well exposed to the weather, and have thus become moderately firm, leaving soft growths until later, and discarding soft drawn shoots altogether. Insert firmly, and stand the boxes and pots on a hard bottom fully exposed to air and sun.

BIENNIALS, of which there should be quantities and in great variety, must be pricked out into beds before becoming drawn and spindly. In a small state they may be put in rather thickly, and afterwards transplanted to other beds before being finally transferred to their flowering quarters. If promptly attended to before the roots become entangled, I think this frequent moving is beneficial to many of them, encouraging the formation of more and better fibrous roots. The present is the season of the year when the

SUMMER BEDDING is expected to be at its best, so daily attention should be paid to the flower-beds to maintain them in perfect order, clearing faded flowers and dying leaves, pinching, pegging, and staking according to the various requirements and objects. The same remarks apply to the herbaceous borders. They are now very gay, but constant care is needed to see to every detail and keep all neat and attractive. Of course watering must not be neglected whenever called for, but with longer nights and heavier dews this operation will be considerably reduced. Look over frequently.

CRIMSON RAMBLER ROSE and others of the same class and season of blooming. Remove the faded flower trusses, and when the main flowering is over cut out with a free hand the spent flowering shoots, thus allowing more space, light, and air for the strong young shoots to develop and mature. Assist Teas, Hybrid Teas, Hybrid Perpetuals, and others that promise an autumnal bloom with liquid manure waterings occasionally, or dress with guano or any suitable artificial compound, watering it in in the absence of showery weather, and plying the hoe freely.

The Gardens, Tan-y-bwlch, North Wales. J. ROBERTS.

INDOOR GARDEN.

OF very easy culture, however small the greenhouse or conservatory, a few bulbs should be grown for spring decoration. The following will be found a useful selection:

HYACINTHS.—Singles: Robert Steiger, crimson; gigantea, delicate rose; alba superbissima, pure white; Grandeur à Merveille, pale blush; Czar Peter, pale blue;

Leonidas, bright blue; Bird of Paradise, yellow; Ida, primrose. Doubles: Empress of India, carmine-red; La Tour d'Auvergne, pure white; Richard Steel, light blue.

NARCISSUS.—Golden Spur, Obvallaris, Emperor, Empress, Sir Watkin, Barrii conspicuus, Minnie Hume, Poeticus ornatus, Polyanthus varieties, Bathurst, and Soleil d'Or, yellows; Gloriosa and Grand Monarque, whites.

TULIPS.—Singles: Besides Duc van Thol, mentioned in a previous calendar, Canary Bird, yellow; Keizer Kroon, crimson and yellow; L'Immaculée, white; Thomas Moore, orange-yellow; Rose Griselin, rose and white; Artus, scarlet; Pottebakker, white. Doubles: Tournesol, red and yellow; La Pécoco, pure white; Prince of Wales, scarlet and yellow. The Darwin Tulips are a little later in flowering than the foregoing, and are excellent for growing in pots. Some of the best are La Candeur, white with black anthers; Clara Butt, salmon-rose; Frau Angelica, nearly black; Europe, fiery red; Gudini, soft lilac; Margaret, silvery pink; Parthenope, pale rose; and the May-flowering Parisian Yellow.

CROCUS.—Placed fairly thick in pots or pans these are easily brought into flower in spring a few weeks earlier than those grown in the open air. Several of the species are even prettier than the garden varieties for growing inside. *C. biflorus*, white striped; *C. Sieberi*, purple; *C. chrysanthus*, yellow; *C. Imperati*, violet, lawn, and black. Garden varieties: Sir John Franklin, purple; Sir Walter Scott, white, striped purple; Mont Blanc, white.

GLADIOLUS.—The early-flowering section by gentle forcing will bloom in April and May. The delicate colours, combined with a dwarf habit, render them very suitable for growing in pots. As cut flowers they are invaluable. The buds on the spikes when cut and placed in water continue to expand. Six to eight bulbs will be sufficient for a 6-inch pot. Four good varieties are Ardens, scarlet; Blushing Bride, white, rosy crimson blotch on lower petals; Colvillei albus, well-known white; Peach Blossom, pale salmon-pink.

MISCELLANEOUS.—Other subjects suitable for spring effect in the greenhouse are Anemones, of which *St. Brigid* and *A. fulgens* are two of the best; *Muscari conicum* and *Heavenly Blue*, *Chionodoxa gigantea*, *Cyclamen Coum* and *C. ibericum*, the giant Snowdrop *Galanthus Elwesii*, Daffodil *Garlic Allium neapolitanum*, *Iris alata* (lilac-blue), *I. reticulata* (dark blue), and *I. reticulata* var. *Krelagei* (reddish purple). All the foregoing, if necessary, can be grown successfully without artificial heat, but it is advisable to protect them from frost.

LACHENALIAS.—Besides being grown as pot plants, they are very useful for hanging baskets. Line the inside of the basket with moss to prevent the soil washing out. Fill with soil, placing the bulbs round the sides at the same time. Use a compost of loam, leaf-mould, decayed cow manure, and sand. Place six to eight bulbs in a 6-inch pot. *L. Nelsoni*, *L. pendula*, and *L. tricolor* are all good sorts.

Royal Botanic Gardens, Kew.

A. OSBORN.

ORCHIDS.

VANDA TERES.—Among plants that have recently gone out of bloom is *Vanda teres*, an Orchid of exquisite beauty when properly cultivated. This plant in its native home (Assam and Burmah) is always found in the hottest places growing over the branches of trees, and exposed to full sunshine. Experienced cultivators have long since found that to grow it thoroughly well it requires more light than most other Orchids. Now that the flowering period is over, many of the plants need overhauling. Some of the growths have become too tall, and these should be cut off about 2 feet from the top. In some places where a large number of this species are grown, the stems when cut off are planted out in suitably-made beds, affording plenty of corks and charcoal for drainage, and a layer about 2 inches deep of growing sphagnum moss. The tops are stuck in the moss about 4 inches or 5 inches apart, and then tied firmly to neat sticks. This method is a very convenient one, especially where quantities of cut bloom are required from a small amount of space. At Burford about half-a-dozen are fixed to upright Teak rafts, each about 6 feet in length, each raft consisting of three or four rods, the rods being about three-quarters of an inch in diameter, and at least 1 inch apart to allow plenty of light and a free circulation of air among the stems and roots. The lower part of the raft is then inserted into a pot and made secure with pieces of broken corks, the base of the stem of the plants being buried several inches in the drainage. Over the corks place a layer of fresh sphagnum moss about 2 inches deep. By these means constant saturation and free drainage are efficiently maintained. After the plants are established and are rooting freely they may again be gradually exposed to direct sunlight, and it is good practice to go over the plants occasionally and tie all the points of the loose roots close in to the wood, so that they may quickly adhere to it. The remaining parts of the stems which have been cut off, if encouraged by heat and moisture, will soon send out fresh roots, and in this way the plant may be propagated. The particular requirements of *V. teres* are that the plant should be placed near the glass in a warm house. Plenty of fresh air is essential, especially when the sun is shining full upon the plants, and copious overhead syringings several times a day during active growth. *Vanda hookeriana* is also a beautiful species. It requires the hottest house, plenty of sunlight, and should be well syringed overhead several times daily until the flower-buds expand. After the flowers are over, the stems may be cut down and refixed similarly as advised for *V. teres*. *Vanda Miss Joaquim*, a beautiful and distinct hybrid between *V. teres* × *V. hookeriana*, should be grown in the

hottest house with *V. hookeriana*, and the present is a good time to cut down the stems and remake up the specimen.

RENANTHERA COCCINEA, *R. Storlei*, and *R. matutina* are Orchids whose roots cling firmly to and entwine themselves around Teakwood rods or Birch poles. These plants also delight in plenty of sunshine and a hot, moist atmosphere during their season of growth. *R. imschootiana* will thrive admirably in a light, warm position in the Cattleya house. *Vanda kimbaliiana* and *V. amesiana* grow well in a Mexican house temperature or along with *Vanda teres*. Both species do best in well-drained pots surfaced with a good thickness of living sphagnum moss. Vandas of the *suavis* and *tricolor* section often lose a number of their lowermost leaves at this season, the principal cause being a very hot, dry, close atmosphere, but tall, strong, well-leaved plants will also lose a few leaves sometimes, this being partly attributable to natural decay. All through the summer months these stately-growing plants require a well-balanced intermediate temperature, plenty of atmospheric moisture, especially around the base of the plants, and sufficient water at the root to keep the surface moss fresh and green. Plenty of fresh air is necessary at all times. The proper season for repotting is at the end of the autumn.

Burford Gardens, Dorking.

W. H. WHITE.

KITCHEN GARDEN.

CABBAGES.—Time, with its progressive motion, has brought us to the season when seeds must be sown to supply vegetables early next year. For this purpose the Cabbage, though one of our commonest, is also one of our indispensable culinary vegetables. Where the cultivator is favoured with a good climate, good soil, and a sheltered border nice sweet Cabbages may be obtained at a very early date. Those varieties which come quickly to maturity and are of compact habit are the most desirable for spring use, and much has been done in recent years in improving the seed of these kinds. After lengthened and successive trials I find none to equal Sutton's Flower of Spring. Here it comes quite up to its best recommendations. One season lately, a very open one, we cut from it all through March and April. No doubt the weather has largely to be reckoned with at such an early date. I find it best, however, to prepare and grow the plants as if assured the forthcoming season will be one of the best. It is a good plan to make two sowings this month, one during the first week, and another at the end of the second or beginning of the third. Plants from the last sowing will be left in their seed beds all winter, and will be strong and hardy for planting out early next spring. For the first sowing, choose a border where the soil is fairly rich, which must be lightly forked over and broken fine to obtain a nice mould, making the surface level and firm before drawing out drills 9 inches apart and nearly 1 inch deep. Sow seed evenly but not too thickly. For the last sowing choose a plot of ground fully exposed to sun and wind in such a position that the young plants become gradually inured to all weathers, and are able to stand the rigours of winter with impunity. Sow the seed broadcast on beds distributing it sparingly. A patch of the Red Dutch may also be sown on the end of this bed.

ONIONS.—These, like Cabbages, are absolutely indispensable, and it will be an advantage to the crop if the ground is prepared for them some little time before the sowing takes place. A piece of ground that has been occupied by members of the Brassica family answers well if it is exposed and well drained. Let the ground be deeply dug, and have some well-decayed manure placed in the bottoms of the furrows as the digging proceeds, so that the roots may find something to feed upon as they descend. These vegetables have deeper roots than many people imagine. When digging has been completed, level and make firm with the feet. Before drawing out the drills run the Dutch hoe over the ground, and tramp again to make the mould very fine and smooth.

GLOBE ARTICHOKE.—In order to prolong the season of this highly-esteemed vegetable, all matured heads must be removed, and where numerous they must be reduced, although they may not have reached a state of maturity. Weeds must be scrupulously kept down, and watering attended to in hot and dry weather.

The Gardens, St. Mary's Isle, Kirkcudbright.

FRUIT GARDEN.

PINE-APPLES.—Repotting should be attended to before the end of the present month. After repotting the plants must be shaded and the house kept close and humid till they have recovered from the check. Much care will be needed in regard to watering at this stage. If the potting soil is in proper condition, and the roots sufficiently moist when the plants are potted, there will be no need for watering till fresh roots are active; a slight spraying of the foliage morning and afternoon will be sufficient. The nights now are too cold to admit of fire-heat being entirely dispensed with; it is also necessary to give attention to the bottom-heat, and see that it does not decline below 80°. Plants which are swelling their fruits should be liberally fed. A little rich material placed round the collars of the plants will encourage fresh roots, and assist the fruits to develop freely. Should the crowns show signs of becoming disproportionately large, the centres may be carefully destroyed. Suckers of the Smooth Cayenne and Rothschild varieties may be taken off and potted when large enough.

MELONS.—The present season has been very favourable to Melon growing in cold pits or frames, and really good fruits should be secured. It cannot be expected that favourable weather will continue for a much longer period, so that it will be wise to give the fruits every facility

to mature. It is essential that Melons should have abundance of sunshine while the fruits are ripening if the flavour is to be of the best. Raise the fruits up so that they are only partially shaded by the foliage. Give plenty of stimulants while they are swelling. An occasional sprinkling of *Le Fruitier* on the surface of the soil will be of much benefit. Moisture must be withheld as soon as ripening commences. Late crops in houses must receive early attention to stopping and regulating the growth. At this time of year they are growing very rapidly, and unless the laterals are kept pinched the growth will become an entangled mass, causing the plants to show signs of premature exhaustion. Plants carrying heavy crops must be regularly watered and syringed or red spider will quickly appear. A congenial atmosphere may be encouraged by flooding the paths during very hot weather. It will be advisable to have a little fire-heat on during cold nights to dispel moisture.

CUCUMBERS (WINTER).—The plants for supplying the winter crop should be raised before the end of the month, so that they may partly cover the trellis before the dull, late autumn weather sets in. A lighter rooting medium will be advisable for this crop. The growth should not be encouraged to become too rank; hard, short-jointed growth is more prolific, and will stand long spells of sunless weather better. Give old plants every encouragement to prolong their fruiting season, so that young plants may be relieved of their fruit as long as possible.

E. HARRISS.

Fruit Department, Royal Gardens, Windsor.

NURSERY GARDENS.

ANNUAL FLOWERS AT READING.

TO call attention to the wonderful fields of colour made by Messrs. Sutton and Sons' annual flowers, that charm the traveller to Reading, is doubtless to repeat what everyone knows who journeys on the Great Western Railway during the summer months. It may, however, be worth while to say that now these hedgeless fields of flowers, colour masses of the best and brightest annuals, are in their full glory. As the train rushes quickly through the cool green valley of the Thames this farm of fragrant flowers is as ribands of blue and red and gold—a gathering together of those plants that give a rich beauty to the garden in summer-time. A distant, fleeting glimpse of these lines and drifts and cloud-like masses of colour gives great delight, but it needs a close examination to make one appreciate the well-nigh illimitable forms and subtle shades of colour which have been given to these plants through the study and patience of the skilled worker.

From the moment one sets foot in the grounds, where thousands of plants are grown for trial—for the sifting of the good from the bad, the rogues from those faithful to the colour and form of their progenitors—there is interesting material on every hand. On either side of the broad drive there are beds gorgeous with Marigolds, Zinnias, Nasturtiums, Godetias, and other showy flowers, their dazzling colours effectively relieved by neat cool plots of green, characteristic miniatures of lawns sown with Sutton's grass seed mixtures. Here, too, of a quieter shade, yet bright and distinct, is a mass of the lovely new *Nigella Miss Jekyll*, a greatly-improved form of the old *Love-in-a-Mist*, of larger size and deeper colour. We learnt that it is wiser to sow this *Nigella* in the autumn than in spring. By doing so, stronger and finer plants are obtained.

Before proceeding far the visitor's attention cannot fail to be attracted by the seedling Carnations. These are literally sheaves of flowers; growing some 2½ feet high, they are the size and shape of small sheaves of corn. It would not be unpardonably imaginative to say that the ears of corn are faithfully suggested by the Carnation flowers, for these are borne in prodigal profusion; even when given nothing more than field culture, as at Reading it is astonishing what an abundance of blossom seedling Carnations produce. Surely a field of these would pay for growing for the market sale of the flowers alone, for few plants would give such a return. About 90 per cent. of the seedlings are double, and one finds among them varieties equal in colour and markings to

the best named sorts. As a matter of fact, Sutton's Carnation seeds are saved from the best named varieties, and this accounts for the many beautiful kinds one may get from a packet of seeds.

Perhaps none of the many annuals in the Reading trial grounds make a more brilliant display than the *Nasturtiums*, flowers beloved of the cottager, yet sometimes unjustly despised by the skilled gardener. To despise these plants nowadays is to acknowledge one's self ignorant of the many beautiful varieties, both dwarf and tall, that may be obtained. The best new sorts produce flowers as freely as the older ones made leaves; they are plants that no garden can afford to be without. Among the tall-growing varieties none is more handsome than *Crimson and Gold*, and none bears a more correct descriptive name, for the flowers are royally gorgeous in crimson and gold. *Salmon Queen* is a valuable tall *Nasturtium*, the salmon pink flowers associate charmingly with the dark green foliage. Another is well called *Brilliant*, for nothing could be brighter or more effective than the scarlet flowers in their setting of rich green leafage. The dwarf sorts are characterised by compactness of habit, leaves of moderate vigour, and profuse flowering. One called *Pearl*, with pale yellow blossoms, was particularly conspicuous, the neat tufts being smothered with flowers. We have had this variety in flower for some weeks, and it has made, and still makes, an extremely pretty edging. One might linger among the *Stocks*, whose near presence is indicated by a sweetly fragrant air. There are some excellent things among Messrs. Sutton's *Stocks*, splendid garden plants of vigorous, sturdy, and compact growth, each growth surmounted by a fine head of flowers. The *East Lothians* were a sight to remember—plants faultless in habit, in white, pink, rose, scarlet, mauve, and purple, each shade of colour distinct and true. Among the ten weeks *Beauty of Nice*, most correctly described as flesh colour, is one of the best. *Christmas Pink*, too, is a delightful *Stock* (intermediate). From seed sown in June the plants may be had in flower at Christmas, so it thoroughly deserves its name of *Christmas Pink*. All the *Year Round* is an intermediate variety that, too, lives up to its name. It is of most attractive appearance, the pure white flowers and rich green leaves rendering it quite distinct. *Yellow Prince*, which is virtually a creamy yellow *All the Year Round*, should be mentioned also. Others equally deserve recognition, but we must pass on.

What a delightful show the annual *Chrysanthemums* make in themselves, especially the varieties of *C. carinatum* and *C. coronarium*. There come at once to mind *Morning Star*, *Princess May*, and *Burridgeanum*, each of which is a host in itself in the garden. A special interest attaches to the two annuals *Phacelia campanularia* and to *P. tanacetifolia*. The former is the bluest of blue annuals, and the latter is a plant the bees delight to honour. From dawn till dusk they hover over its honeyed flowers. The *Sweet Sultans* are flowers dear to the heart of all who love a garden, and many will doubtless be glad to know of *Giant Sweet Sultans*, which Messrs. Sutton have raised.

Perhaps the greatest surprise of all was occasioned by the latest novelties in *Snapdragons*. There seems to be no limit to the rich colours introduced into these flowers. *Golden Chamois* (tall) is a most beautiful flower, a mingling of orange and red; *Yellow Queen* (intermediate) is pure primrose yellow; and *Orange King* (dwarf), perhaps most gorgeous of all, is a flower of richest yellow. Two splendid annuals are *Lavatera rosea splendens* and *L. trimestris*; the former is dwarfier and has a flower of richer rose than the latter. These are most showy and beautiful, and no garden, however small, should be without them. They grow equally well in the town as in the country garden. It is not often that one sees the *Schizanthus* thoroughly at home out of doors, but here the quaintly

formed and prettily marked flowers of varieties of *S. pinnatus* are freely produced. The seed was sown in April last, and the seedlings were simply thinned where they grew. They were, in fact, treated just like an ordinary hardy annual. Masses of Cornflower in rose, blue, white, and blue and white served to show the value of these homely and easily grown flowers and the various colours in which they may now be had. That there are rose, white, and bicolor Cornflowers is a fact not yet generally known.

It goes without saying that the Poppies made a brilliant display. We saw them in great variety. There were giant Poppies, French Poppies, Shirley Poppies, Poppies *Ranunculus*-flowered, Iceland Poppies, Poppies *Camellia* and Poppies *Pæony*-flowered, and even others. The dainty flower-cups of *Eschscholtzia* waving gently above the graceful grey-green foliage made a charming picture. Of these crocea is orange, Mandarin is orange-brown outside and inside yellow, while *tenuifolia* (pale yellow) and *cæspitosa* (deeper yellow) are miniature plants of tufted habit, excellent for the rock garden or border edge. So skilfully have Messrs. Sutton practised selection and hybridisation among *Eschscholtzias* that a rose-coloured self has been obtained. Of other annuals that deserve a wider recognition we might mention *Cacalia coccinea* (the Tassel Flower), with its scarlet inverted, tassel-shaped blooms; *Leptosyne Stillmanni*, a delightfully accommodating plant that will flower in six weeks from seed, having *Tagetes*-like foliage and yellow *Coreopsis*-like flowers; *Calandrinia grandiflora*, with large rose-coloured blossoms and succulent grey-green leaves; *Bartonia aurea*, having Thistle-like leafage and flowers not unlike those of *Hypericum*; and *Diaacea Barbara*, a charming little plant, with bright pink flowers. We cannot omit to mention Sutton's Pink Beauty Sweet William, for it is a plant that has won the highest praise from all who have grown it. Such is a brief mention of a few of the individuals that make this brilliant display in the Reading trial-grounds—a deeper peep into those gorgeous colour masses that delight the eyes and gladden the heart of those swiftly passing by, and which prove a source of keen delight to those privileged with a closer acquaintance.

BOOKS.

The Amateur Gardener's Rose-Book.*—This work, which was somewhat obtrusively advertised at the recent National Rose Society's show in the Botanic Gardens, labours under a double disadvantage. In the first place, it is a translation of a German book, and it is very doubtful whether German growers, who have only recently become of any account at all, have anything to teach their English brethren; and in the second place, the learned author has not lived to see his work completed. This has, however, been done for him by his friend Herr Ostertag of Stuttgart, and Mr. Weathers, who is horticultural lecturer to the Middlesex County Council, has done his part as a translator excellently. The book, in fact, except for a few names, reads almost throughout as smoothly as if it had been an original. The only important difference of treatment that seems to require mention here, is the assumption that budding is naturally to be done on the main stem of the Briar, whereas English growers almost always use the laterals, and only fall back on the main stem in case of necessity. Some further evidence about the comparative results here seems to be eminently desirable. As to the illustrations of the book, the German publisher and the English translator have already said so much

about "beautifully executed plates," "the great beauty and exactness of the beautiful plates," and so on, that there is little left but to point out their limitations. Some are very well done, especially the simpler ones not aiming at perfection of form, such as the Dog Rose, the common Moss, or Crimson Rambler. In others, such as Mme. Victor Verdier or Grüss an Teplitz, which have but little shading, the general tone of colour has been satisfactorily attained. But those that depend for their effect on an intensely delicate gradation of shades are far less satisfactory, and had better have been omitted or replaced by others. The worst is, perhaps, *La France*, where the exquisite silvering of the reflexed petals has taken a ghastly livid hue. And the selection of blooms needs more revision than that of varieties. There is not one out of the whole twenty, except, perhaps, a not quite first-rate Mrs. W. J. Grant, that could possibly find a place as it stands in the humblest exhibition box. There are some notes on the parentage of varieties which are very interesting if they can be entirely relied on. A few of the names, though not many, seem to have gone wrong. Grace Darling, for example, is certainly not a Tea. There is a comical confusion in a note on Provence Roses (page 4): "Provence, not Province. The name Provence is derived from a village near Paris, which became famous as a Rose-growing district." This evidently refers to the attempted derivation of "Provence" Roses from Provins, which is a considerable town 60 miles from Paris, instead of from the country of Provence. But for which side Mr. Weathers supposes that he is arguing remains still in obscurity.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, W.C. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

Legal Points.—We are prepared to answer questions of law which have anything to do with the subject of gardening and forestry. The questions should be as clear and explicit as possible, so that there can be no doubt as to the point of the question. Answers will be found in a separate column headed "Legal Points."

PROPAGATING CARNATIONS (*Carnation, Bath*). The best way of increasing border Carnations is not by cuttings, but by what is termed layering. This consists of so treating the shoots that they may be rooted while still attached to the parent plants. It is quite a simple matter, and if you do the work carefully there is no reason why you should not be able to increase your stock considerably. Next April you should try raising Carnations from seed. You can get a packet of seed of good varieties quite cheaply, and although they will not all come double you will get a large percentage of doubles, and seedling plants flower much more freely than those from layers. They would not bloom, however, until the year after they are sown. When your plants have finished flowering cut down the flower-stems. To layer your plants, remove 2 inches of the surface soil and replace this with sifted sandy soil. Give the old plants a good watering the day before. Bring the growths carefully down to the ground, taking great care not to break them off in doing so. Remove the lower leaves and cut off the ends of the remaining ones. Then with a sharp

penknife pierce the centre of the shoot between two joints and bring the blade downward through one joint and out below it, thus making a downward cut, and slanting off below the joint. A tongue is thus formed. Then very carefully press down the shoot into the soil perpendicularly, so as to cause the tongue to open, and make it firm in the sandy soil with a peg of wire or wood. Make sure that this part of the shoot is well covered with soil. You can treat each shoot in the same way. Keep the soil moist by sprinkling with a fine rose can in the evening of hot days. In about five weeks they will be rooted. See THE GARDEN of the 5th inst. for an illustration of layering Carnations. In late September you may separate the layers from the parent plants, and plant them in a separate bed. As to the young shoots dying off, this is probably due to their having suffered from want of water, or it may be due to the attack of some insect pest. Are you sure there are no wireworms in the soil, for they are very destructive. The stem naturally becomes brown with age. You might leave some of the layers alone after they are rooted. You will then have some good specimens next year.

GREEN FLY ON MELONS (*A. Wade*).—Yes, it is certainly safer to fumigate and the best thing to do, providing that you take proper precautions. It must be done in the evening when the sun is no longer shining on the Melon house. You may fumigate by burning Tobacco paper in an open portable grate, or you may vaporise nicotine or XL All insecticide. The latter is a very useful and convenient method of working. You must be careful to follow the instructions as to the proper quantity to use. If your Melon house is not very large you can kill the green fly by making Tobacco water by soaking Tobacco paper in water until the latter is stained a light brown colour; then syringe the affected shoots. If you do this two or three times a week, syringing the shoots with clear water early the next morning, you will soon get rid of your green fly.

MARECHAL NIEL MAKING LATERAL GROWTHS (*A. H. H.*).—No, do not remove them now. Allow them to grow unchecked until the end of August, then just pinch out the points. When starting your house next winter or spring cut back these laterals to two or three eyes of their base. If you leave them unchecked now it is very doubtful whether they will produce buds this season, but in any case this would not prevent their flowering next spring. Some liquid manure could be given advantageously now and up till September, in moderation, say, once a week. This will help up the buds, and you should obtain some grand blossoms next year.

MANETTI AND DE LA GRIFFERAIE STOCKS (*C. H.*).—The Manetti stock has red spiny wood and bright grass green leaves. It blossoms very sparsely, whereas the De la Grifferaie stock is much freer; in fact, the latter seems like a pale coloured Crimson Rambler. The foliage, especially at the end of the shoots, has a peculiar downy appearance, the leaves being thick and leathery. In any case, if the Roses are of a common sort, why not bud good kinds on to the bushes now. Select some growths of this season, and remove those not required. Insert the buds as near the base of the new shoots as you possibly can. You could put on as many as a dozen buds, and of as many different kinds if you like. Leave the bushes as they are until next February, then cut back shoots to the bud inserted, and rub off any shoots of the "stock" that show themselves. You could get some fine plants of good kinds, such as Caroline Testout, Mme. Abel Chatenay, Frau Karl Druschki, &c., quicker than if you planted new plants, providing always the soil is in good condition. The De la Grifferaie stock flowers a little earlier than Crimson Rambler, and the Manetti stock about one week earlier than the De la Grifferaie.

HEPATICA (*Kirkstall*).—The Hepatica is, as we surmised, *H. angulosa*, but the flowering is yet

* "The Amateur Gardener's Rose-Book." By the late Dr. Julius Hoffmann. Translated from the German by John Weathers. With twenty illustrations. (London: Longmans, Green, and Co., 1905. 7s. 6d. net.)

abnormally early, and the more so for your northern district. The blossoms of *H. angulosa* are much larger than those of *H. triloba* varieties, and we imagine there is a local influence which promotes the early and poor flowering you speak of. We do not remember if in your former letter you told us of the soil in which the plant was growing; but, speaking generally, all *Hepaticas* prefer very sandy and rich loam, with abundance of decaying leaves or vegetable matter added. If you have none of this obtain some very old manure, break it up finely, and mingle it freely with the soil in the proportion of one third. Dig the soil deeply and so prepare a depth of 2 feet of good soil, as all these things root deeply. Early in September replant the specimen, and, if needs be, break it up and so arrange the divisions that a large group is eventually formed. *Hepaticas* prefer sheltering shade away from keen winds, but not too dense a shade overhead.

PURPLE PEAS (*W. T. Waters*).—The pods of the Peas sent are not at all uncommon abroad, but in this country they are not recognised; indeed, seedsmen will not catalogue them, as they have no value otherwise than as a great novelty. We have got so accustomed to pods of a deep green shade, that others are of little use. On the Continent they have a variety a little darker than this, called *Nigger*, and in Paris we have seen them under various names and diverse shades of colour, but grown more as a novelty for their appearance than as an article of food. By some the colour is not objected to, as the pods are cooked whole in a young state, and the colour disappears in the cooking.

PEA HAULM DISEASED (*H. N. B.*).—We are obliged for your note giving more details of the mischief caused to your Pea crop, and since your first letter we are sorry to say that there have been many complaints. Yours is by no means a solitary case. The dates you now give help us greatly in tracing the injury. The manure was suitable, and you note that the first earlies escaped and the later ones were injured. This, we think, was due to frosts at the end of May, and the varieties being *Marrows* of a soft succulent nature were soon injured; the frost injured the stems. This was not noticed for a time, but when a greater demand was made on the roots the injured portion felt the strain and collapsed. You see that the roots are sound, but the haulm is withered a few inches out of the soil. Near London there were 9° of frost. Your garden may be exposed, and would suffer more. Thrips would not attack the haulm at the base, but higher up, and doubtless thrips would soon do this on a weak haulm, but we think from the specimen you sent there were few thrips. The haulm high up was healthy. The frost was so sudden, and could not be avoided. This may not happen again for some time; we hope not.

DELPHINIUMS: HOW TO INCREASE (*W. T.*).—The best mode of increasing the named sorts, which, as you say, do not come true from seed, is by root division. The best time of the year is March, but every one in his own district may fix his own time, and take the plants as they appear ready, the best time being when the young shoots are not more than 3 inches above ground. Dig up the plants you wish to divide or increase, and wash away from the roots all soil in a pail of water. In this way your course of action is made clear. Now lay the plant on its side, and if very large insert the prong of a small hand-fork one-half its depth, just below the crown buds and growth, and wrench in an outward direction. This will rend the root stock asunder, with the grain of the root, and save a severance and loss of root and crown that a deliberate cut through the crown must cause. With the plant in two portions, the operator will see clearly how to act, and generally the point of a strong pruning knife inserted just below the crowns will effect an opening sufficient for the operator to take the portion in his hands and wrench it

asunder. We give you this in detail to save you the loss that must ensue when a system of cutting right through the crowns is followed. Many large roots in these *Delphiniums* cross and entwine with each other, hence the risk in cutting through the tufts. This and washing away all soil are therefore important items. Another point of equal importance is, that some plants make many crown buds and but one or two roots below, so that good division is well-nigh impossible. In such instances the main root may be split in half longitudinally if large enough to admit of this being done. If not, shorten it to within 6 inches of the rootstock to assist it in making more fibrous roots. In such instances as these there is usually a larger number of young shoots apparent, and then comes the system of cuttings. No cutting of a *Delphinium* is any good as such if it be cut into the hollow portion of the stem; therefore to ensure a perfectly good cutting a thin slice of the rootstock a quarter of an inch thick must be cut away with it. Such cuttings 3 inches to 5 inches long with the heel intact, if inserted in very sandy soil in a shady, cold frame or handlight, will root almost cent. per cent. in about a month, and may be potted up before being planted out. The divisions of the plants if well rooted may be replanted at once in very deeply-dug and heavily-manured land. Leave the point of growth well above the soil, and plant firmly. No spikes of any importance will be given during the summer when the plants are much divided. Larger tufts may be planted at the same time of year, however, and flower well. Young plants with two or three crowns make excellent material for planting, and several such planted over a ground area of 2½ feet to 4 feet will produce a noble effect when in full bloom.

SCABBED APPLES (*W. B. W.*).—Your communication respecting Apple scab is a very interesting one. Whilst, as a rule, the fungus which produces scab on fruit is generated by the roots of the trees being down in sour or foodless soil, it would seem as if yours were in soil that is far too rich, and in that respect generates disease through overfeeding. Judging by your own description, it is a very stiff, retentive soil; hence when clogged with water or the surface closed up by rain beating on it, or choked with manure mulchings, sourness is very likely to result. Such dressings as you have applied to your trees excel all we have ever seen or read of. Our advice to you even now is to refrain from further dosing of any description. Leave Nature to her own resources, and when in the winter she has done her best under the conditions which exist to make fairly healthy wood and mature it, then lift each tree, add to the soil where previously grown a bushel of old mortar refuse and wood ashes and some soot, replanting each tree rather on a mound, and shallow. After that is done smother the soil with fresh-crushed lime, and let it work in. If the result be not to create healthy conditions and obliterate scab, then, we think, the soil must be past redemption. If the trees are treated as advised, prune them moderately early in the spring, and when good leafage is formed, place a thin coat of stable manure about each one to check soil baking and evaporation.

SHRUBS (*Light Dragoon*).—Your shrubbery (a) should have about eight specimen trees dotted over it as follows: *Laburnum alpinum*, *Pyrus floribunda* *atrosanguinea*, *Cupressus lawsoniana* *lutea*, Paul's double Scarlet Thorn, *Prunus Cerasus flore-pleno*, *Cupressus lawsoniana* *intertexta*, *Pyrus spectabilis*, and the common *Laburnum*. The following shrubs will make good groups: *Lilacs* (white and purple), *Philadelphus coronarius*, *Genista virgata*, *Verbnum Opulus* *sterile*, *Phillyrea media*, *Berberis Darwini*, *B. stenophylla*, *Diervilla* *Abel Carrière*, *Cytisus albus*, *Hamamelis arborea*, *Buddleia globosa*, *Phillyrea decora*, *Viburnum tomentosum* *var. plicatum*, *Buddleia variabilis*, *Lonicera tatarica*, *Diervilla hybrida*,

Cytisus præcox, and *Spiræa discolor*. These are all tall growers, and should occupy the back, the front part, 3 feet to 4 feet, being devoted to dwarfier things, such as *Hypericums* in variety, *Spiræa Anthony Waterer*, *S. japonica*, *Cotoneaster horizontalis*, *Potentilla fruticosa*, and *Olearia Haastii*. The shrubbery (b) may be planted in a similar manner, but the specimen trees should be coloured foliaged things, such as *Prunus cerasifera atropurpurea*, *Populus deltoidea aurea*, *Ulmus campestris variegata*, *Hollies* in variety, *Catalpa bignonioides aurea*, and *Ulmus Louis Van Houtte*. The groups of shrubs could be up made of Purple and Golden Nuts, *Cornus alba sibirica variegata*, *C. a. Spathii*, *Atriplex Halamus*, Silver and Golden *Negundos*, Japanese Maples, and so on. The shrubbery (c) would look well planted with strong-growing Roses with a few Cherries or Almonds as dot plants. *Rosa rugosa*, *R. multiflora*, *R. Crimson Rambler*, and so on would be suitable sorts. Your Lily tubs should contain *Lilium Brownii*, *L. speciosum* and varieties, *L. auratum*, *L. pardalinum*, *L. croceum*, *L. umbellatum*, *L. candidum*, *L. Henryii*, *L. Hansonii*, *L. Martagon*, and *L. tigrinum*. A stone border would look very well along the drive. Your Austrian Pines should be placed 12 feet apart, and your Chestnuts from 16 feet to 24 feet. If placed at 16 feet, every other one ought to be removed eventually. Scarlet Oaks, Horse Chestnuts, Beeches (green and purple), and Purple Sycamores would do behind your Pines.

PLUM TREES (*A Reader of "The Garden"*).—The Plum trees that are making a lot of wood should be thinned out, not cut back now. By thinning we mean take out crowded growths or cross pieces to admit light and air, and ripen up the fruit buds for another season. By cutting back or shortening strong shoots now you aggravate the evil, as the trees would again shoot out and become more crowded than ever. Young trees are at times too well treated, and make gross wood, that is not fruiting wood, and this can only be checked by not pruning as you note. Root pruning should be done in October if possible, but do not cut back too hard at that season—keep a fair distance from the stem. A yard is a fair distance for healthy trees. Preserve the young roots of a fibrous nature, and these should be carefully spread out when the strong ones are cut. In your case it would be a good plan to cut clean under the trees, as often there are strong tap roots which go direct down which cause the mischief. You would also do well to fill in round the cut roots with prepared soil, to which has been added old lime or mortar rubble, burnt soil, or refuse. This encourages sturdy roots and fruit buds to form.

OLEANDER NOT FLOWERING (*Doctor's Commons*). As the plant is about 5 feet high and is only in a 4½-inch pot the cause of the flowers failing to develop is undoubtedly too restricted root space. We should advise giving it a reasonable shift into a mixture of loam, leaf-mould, and sand, but it is probable that the season is too far advanced for this year's blossoms to develop. Still, it might be tried, and the matter is more likely to be a success if the roots are not disturbed in any way; in fact, better break the pot than pull the roots about. The stimulants referred to by you are undoubtedly good, but there can scarcely be room in the pot for the plant to do itself justice. For the winter it needs the protection of an ordinary greenhouse, and in summer it may be placed out of doors, in which case plenty of water is necessary and also a liberal amount of direct sunshine, for the Oleander is essentially a sun-loving plant. We are often consulted as to the non-flowering of Oleanders, and where we have advised a more liberal treatment at the roots by means of stimulants if the pots are large enough, and a shift into larger ones if we consider them too small, the results have, in nearly all cases that have come under our notice, been successful.

PEA HAULM DISEASED (*J. Whitehead*).—The Peas are suffering from a bad attack of the Pea and Bean rust (*Uromyces appendiculatus*). This is a disease common to the Pea in very hot weather. Nothing can now be done to save the crop if all the haulm is as bad as the sample sent. When taken up the haulm should be burnt to prevent the possibility of the disease spreading. The best preventive against this and the common form of mildew, to which the Pea is an easy prey in hot weather, is good cultivation and thin sowing. In order to secure healthy growth and good crops at midsummer, when the weather is usually the hottest, trenches should be made and liberally manured as for Celery, and the seed sown thinly in them. Copious waterings of manure water should be given in hot weather while the pods are filling and until the crop is exhausted. See the First Prize Essay on growth of Peas in THE GARDEN of the 22nd ult.

VINE LEAVES SCALDED (*W. H.*).—The scalding of Vine leaves in a proper vinery or greenhouse is of very rare occurrence, as in such houses the wires are some 15 inches from the glass, hence the leaves are not near enough to the glass to be scorched. In the new vinery at Hampton Court the wires are fully 2 feet from the glass, thus allowing ample air to pass between the leaves and the glass. You do not say at what distance your wires are from the glass, but from what you say as to the scorching of the leaves, the inference is that they touch the glass and retain moisture until after the sun has gained great power. A proper vinery should never be shaded with any coating of whitening as yours is. Another winter it will be wise to have the wire supports lengthened so that the leaves do not touch the glass. Black Hamburgh rods 14 feet long, if good stout ones and carrying well-foliaged laterals, might carry ten bunches of Grapes of from 1 lb. to 1½ lb. each. Possibly the upper parts of your rods last year were not well ripened, hence the bad colour. Grapes should be thinned well once only if possible.

DRESSING A LAWN (*E. G.*).—Sawdust is such a poor absorbent of liquid, and, as it decomposes, though slowly, so liable to create fungus, that it is quite unfit to use even from a stable as a dressing for a lawn. Any manure that absorbs urine from horses freely when fairly decomposed makes excellent dressing for grass, because it soon washes in. If you do use the sawdust manure as a dressing, at least mix with it its equal quantity of sifted soil, and let it lie in a heap for two or three months before it is applied. Dressing a lawn with lime is not common practice. If employed it is chiefly for the purpose of destroying earthworms, slugs, and grubs. It has no power whatever to create weeds of any description. Stiff clay land may be all the better for an occasional lime dressing, but very light soils do not need it. Possibly a quantity of lime and soot at the rate of a bushel mixed to a cartload of the manure and soil would do much good.

RENOVATING OLD FRUIT TREES (*A. J.*).—The best thing to do now is to thin out the shoots, removing all that are old, weakly, and worn out, so that the remaining ones may have all light, air, and sunshine possible. These are very important factors in fruit culture, and without their aid it is impossible to have well-developed and well-ripened wood, and impossible without these to get good crops. Peaches are produced upon shoots made the previous year, so take care in thinning the growth to cut out the old and leave those of this year's growth. You need leave sufficient only that when fastened to the wall they will be, say, 4 inches apart. If the Cherries are Morellos, the same remarks apply, for the fruit is borne on one year old wood. If they are sweet or dessert varieties, the fruits are produced on spurs from the older wood. Plums are produced on spur growths, and from young growths also, so some of the latter should be laid in. Pears are produced on spur growths. The spurs must be thinned out, so that they are,

say, not closer than 12 inches to 18 inches. The shoots on each spur should also be thinned. Do not do all the thinning out at once, for the loss of so much foliage at one time would do the trees a good deal of harm. Do it gradually until the end of the season. If you have the shoots so numerous and crowded they become weak and splindling, and are useless, so it is all important to thin them out as advised. In the month of October you should turn your attention to the roots. Dig a trench 2 feet to 3 feet deep about 6 feet away from the wall; then, standing in the trench, proceed to fork away the soil from towards the tree. Continue to do this until you come to a good many roots. If you come across any thick, gross roots going directly into the subsoil, cut them back; in fact, all the thick fibreless roots you come across should be cut back. When you have found a good number of roots, proceed to replace the old soil (which must be taken right out) with good soil, preferably turves which have been stacked for some months. If these are not obtainable, get the soil as turfy as possible, mix some well-decayed manure and bone-meal, or some good artificial manure with the soil, which should have been prepared before. Make the soil firm as it is put in, and carefully raise all roots which are deep down and lay them nearer the surface. The object is to get the roots nearer the surface, making several layers of them, not crowding all together, but giving each plenty of room, and making the fresh soil firm about them. The following summer the trees ought to make a better growth, and you must tend carefully to their regulation and summer pruning. We cannot give you fuller information here. We should advise you to consult a good book on the subject; for instance, "The Fruit Garden," by George Bunyard and Owen Thomas (George Newnes, 21s.).

BORDER PLANTS (*D. Morton*).—You give us no idea of the kind of plants you wish for, or whether you prefer any one season to another for the flowering. In these circumstances, and without the size of the borders to which you refer, we can only assist you indefinitely. If, however, the plants enumerated below are not satisfactory, please write us again with fuller particulars in the way we suggest. If the borders admit of fairly deep digging, you may plant in that marked A, Gaillardias, Campanulas, such as *grandis lactiflora*, any of the Peach-leaved kinds, *glomerata*, *celtidifolia alba*, *carpatia* in several forms, Canterbury Bells, Day Lilies, *Lilium croceum*, *L. umbellatum*, *L. pyrenaicum*, *L. Martagon*, Michaelmas Daisies, Sunflowers, Red Hot Poker, and many others could be grown. In the border marked B we suggest *Lilium candidum*, rather near the trees, Christmas and Lenten Roses, *Megasea cordifolia purpurea*, Foxgloves, Flag Irises in variety, Lupins, Oriental Poppies, white and red perennial Pea, Heucheras, Japanese Anemones, Crown Imperials, *Anchusa italica grandiflora*, *Stenactis speciosa*, &c. Seeds of perennials sown now may not vegetate before the spring of 1906, and could not be depended upon for flowering. Some plants, as Gaillardias, appear quickly, and these may be of good service.

NAMES OF PLANTS.—*C. E. F.*—The two specimens you send are both *Betula alba*. It is a very variable species, some forms being quite glabrous, others very hairy, one variety being called *B. alba pubescens*. It is not uncommon to get one as hairy as the one you send.—*F. Townley*.—1, *Prunella vulgaris*; 2, send again; 3, *Spirea Ulmaria*; 4, *Melampyrum pratense*; 5, *Achillea Ptarmica*; 6, *Centaurea nigra*; 7, *Stachys Betonica*; 8, *Vicia Cracca*; 9, *Hypericum pulchrum*; 10, *Epilobium hirsutum*; 11, flowers fallen, cannot determine.—*Athelstan Riley*.—1, *Anthyllis* sp.; 2, *Suaeda fruticosa*; 3, *Statice bellidifolia*; 4, *Oxalis arenaria*; 5, *Cnicus diacantha*; 6, *Euphorbia terracina*.—*E. B. G.*—*Lilium superbum*.—*Doronicum*.—1, *Inula barbata*; 2, *Lysimachia Ephemerum*; 3, *Centaurea glastifolia*; 4, *Campanula rapunculoides*; 5, *Veronica longifolia*; 6, *Eryngium alpinum*; 7, *Helenium* *Bigelovii*.

SHORT REPLIES.—*M. Langley*.—Yes, carbolic acid would be most injurious. To eradicate place small jars like those used for potted meats, half filling them with sour beer in which a good quantity of sugar has been dissolved. If these jars are placed touching the inverted pots large numbers will soon be caught.

WILD SPORTS OF BRITISH FERNS.

AT the meeting of the Royal Horticultural Society, on the 1st inst., Mr. C. T. Drury, V.M.H., F.L.S., gave a very interesting lecture, illustrated with lantern slides, on "Wild Sports of British Ferns," his object being in this instance to demonstrate the absurdity of the general application by botanists, up to a comparatively recent date, of the term "garden varieties" to all abnormal types, regardless of the fact demonstrated by the lecturer that the bulk of these types—in the case, at any rate, of British Ferns—were absolutely wild sports, entirely independent of garden cultivation. His aim was also to show that cultivation is by no means the main factor—if, indeed, it be a factor at all—in inducing sports of this distinct class, since all the types have originated spontaneously as wild plants, and all that the cultivator has been able to do is to emphasise these types by selection from the seedlings if they vary, as they frequently do. The peculiar richness of the British Isles in wild Fern sports he evidenced by citing the latest list, which catalogues about 1,200 distinct forms as found wild among our comparatively few species, some forty odd, many of which vary but little, and some not at all. He also combated the theory that sudden and wide variation of this kind was in any way responsive to changed conditions of environment, since they are mostly found on hill and mountain sides, in glens and similar places, where the same conditions have prevailed from time immemorial, while they are furthermore generally intermingled, both as regards roots and fronds, with perfectly normal plants not modified in the least. Mr. Drury then alluded to the fact that, since scientific botanists had recognised that this particular domain of investigation was worthy of their labour, many most interesting discoveries had been made, including that of Professor Farmer, that certain abnormal reproductive Fern cells were closely akin in their development to those of cancerous growths in man, a fact which may afford an invaluable clue to the true nature of that dreadful disease. Owing to the limited time at his disposal, the lecturer determined to spread his further remarks on these points over the slide exhibits, and to subsequently collate such remarks for the Royal Horticultural Society's Journal, should it be decided to insert a full report of the lecture therein.

The first slide shown presented the various life cycles of Ferns as depicted by Professor F. O. Bower, the normal roundabout process of reproduction through the spore being short circuited, as it were, in apparently all possible ways, though the subsequent discovery of Dr. Lang, that the Fern prothallus may bear spores, adds another of Nature's short cuts. Some forty forms of Ferns, embracing ten species, were then shown on the screen, depicting first a number of wild sports, which were described seriatim, followed by a few of the beautiful results of selective cultivation, and concluding with a view of the lecturer's fernery, in which a number of the *élite* were grown under glass with charming effect. The great beauty of all the varieties shown, and the extraordinary extent to which a specifically simple form may be transformed into a finely dissected type of utterly different appearance, were well evidenced, the variation being often far greater than is seen between quite different species.

The fact, too, that these wild sports transmit their peculiarities, as a rule, truly to their progeny by spores was also adduced as strengthening Professor Hugo de Vries' theory of mutation, by which he claims that such sports in plants generally have probably played an important rôle in the evolution of species. All that is needed, indeed, is a capacity in such a sport to establish itself freely to constitute it a species proper, since otherwise it fulfils every

definition that can be formed of what a species really is; a species is merely a constant distinct variety of a genus, which breeds true to type, and many of the wild sports fulfil these conditions perfectly, and are, as has been stated, even more distinct from the normal than many species are from each other.

LEGAL POINTS.

LIABILITY OF MEMBERS OF CLUB FOR GOODS SUPPLIED (J. T.).—As a general rule, the committee of a club have no authority to pledge the credit of the members, but every member of a club who either concurs in, or subsequently assents to an order for goods given by the committee or certain of the members of the club, is personally liable, unless it appears clearly that the tradesman meant to give credit only to the persons by whom the goods were ordered. A member of a committee of a club is not personally liable for the price of goods ordered by the committee unless such member individually authorised the making of the contract or unless it is proved that the dealing on credit was in furtherance of the common object and purposes of the club. The same rules apply to a gardener's club as to other clubs.

TRESPASS AND DAMAGE (Freehold).—It is fortunate that we suggested you should examine your title deeds with the object of ascertaining whether you have covenanted to maintain the fence. The nature of the fence to be maintained must be ascertained by reference to the covenant. In the absence of express stipulation the fence must be reasonably sufficient. You could not be called upon to erect a rampart which would stand the onslaught of a herd of buffaloes; but you would have to provide a fence which would keep the ordinary domestic cow within due limits, or perhaps even a bull, unless of a peculiarly agile or battering disposition. This is a case in which you had better consult a local solicitor if you require further advice. He will have to read the deed of covenant, and probably inspect the fence.

ESTATE AGENT'S COMMISSION (A Devonshire Landowner).—It is always desirable to make a specific arrangement in writing with an auctioneer or estate agent regarding his commission. This is particularly so when a property is placed in the hands of several agents. In such cases questions frequently arise as to which agent is entitled to the commission. The best plan is to stipulate that the commission shall be payable to one agent only, and that in the event of the commission being claimed by more than one agent the matter shall be referred to some independent person, such as the president of the Surveyors' Institute or the Auctioneers' Institute, to decide to which agent the commission shall be paid. Most agents have printed forms of authority and printed scales of commission. These should be carefully read, and no instructions given until the arrangement as to commission has been agreed upon and defined in writing. The following points should be noted: (1) If the agent has performed his part of the contract by introducing a purchaser or lessee and the bargain goes off through a default of the principal, the agent will be entitled to his commission. It is therefore desirable to arrange that the principal shall be under no obligation to complete the purchase or letting unless he thinks fit to do so. (2) If several agents are employed separately, it seems that the one who first introduces the parties is entitled to the commission. (3) Where an agent introduces the parties he is entitled to his commission, notwithstanding that the terms are settled by the principals. (4) The agent is entitled to his commission if he can prove that he first brought the property to the notice of the purchaser or lessee. (5) An agent is entitled to continue to deal with the property until his authority is

revoked by his principal. It is always desirable to revoke an agent's authority in writing. Where an agent introduces a property to a purchaser or lessee and the agent's authority is subsequently revoked, if business ultimately results he is entitled to his commission notwithstanding such revocation. (6) In general an estate agent has no authority to enter into a binding contract for the sale or letting of property. If he purports to do so, the purchaser or lessee cannot compel the owner to carry out the transaction unless he is willing to do so, but the owner may elect to hold the other party to his bargain.

TRESPASS BY FOWLS (A. R.).—Your neighbour must keep his fowls from trespassing in your garden, and he is liable for any damage which they cause. Write to him complaining and demanding compensation. If the acts of trespass are repeated sue him in the county court. You will probably find it necessary to instruct a local solicitor. In many cases of this sort a lawyer's letter has the desired effect.

LIABILITY FOR GARDENERS (D. H. R., Bournemouth).—The Workman's Compensation Act, 1900, applies to a gardener employed in "a villa garden," the words used being "horticulture, forestry, and use of land for any purpose of husbandry, including keeping or breeding of livestock, poultry, or bees, and growth of fruit and vegetables." The Act would not apply to a gardener casually employed to perform an odd job. The employer must "habitually" employ one or more workmen (which term includes gardeners). An employer who "habitually" employs a gardener on one or two days in each week would seem to come within scope of the Act. You can insure against liability for a small sum per annum. We know of several cases in which such insurances have been effected. When a gardener is employed to do other work, the Act applies while he is engaged in such other work. The Act also applies to accidents which happen while the gardener is engaged in the performance of his duties away from his master's property. In a recent case a gardener, who also acted as odd man, was killed when driving his master's horse and trap at a distance of three miles from the master's house. It was held by the court that the Act applied, and that his dependents were entitled to compensation. The master's liability may therefore be of a very serious and unexpected character. Most people who employ gardeners and odd men do not appreciate the nature and extent of their liability under the Act of 1900.

SOCIETIES.

ROYAL HORTICULTURAL SOCIETY.

NEW PLANTS.

SAMBUUS CANADENSIS.—A handsome shrub, with huge flattish cymes of white flowers, the heads more than 1 foot in diameter. The pinnate leafage is very distinct. Exhibited by Messrs. James Veitch and Sons, Limited, and by Sir Trevor Lawrence, Bart.

Campanula carpatica White Star.—An excellent addition to white Campanulas, the blossoms about 2 inches across on a plant less than 9 inches high. A valuable plant for the garden.

Hemerocallis Dr. Regel.—One of the most beautiful and refined of the Day Lilies; colour light orange. These two were from Mr. M. Prichard, Christchurch, Hants.

Spiraea Aitchisoni.—A shrubby species of neat habit. The small creamy white blossoms are arranged in dense, erect panicles. From Mr. M. Prichard and Sir Trevor Lawrence, Bart.

Berberis vulgaris foliis purpurea macrophylla.—A dark-leaved form that should prove very effective in the garden. From Paul and Son, Cheshunt.

Centauria Jarman's strain.—A choice strain of the Sweet Sultan. From Messrs. Jarman, Chard, Somerset.

Glaucolus Lady Inchiquin.—A charming variety of pale salmon shade, the lower petals touched with red and yellow. From Messrs. Kelway, Langport.

Tritoma Prometheus.—A large and handsome form, of tall vigorous habit. The orange-coloured blossoms are fully 3 inches across, and encoloured with crimson at the base of the segments. From Major Petrie, Norwich (gardener, Mr. G. Davison).

Buddleia variabilis magnifica.—A very distinct variety, in which the closely arranged, oppositely disposed clusters

of purple blossoms give the impression of whorls on the lower part of the spike. From Messrs. James Veitch and Sons, Limited, Chelsea.

Carnation Roy Morris.—From H. W. Morris, Esq., Chipping Norton. A splendid bright scarlet flower, the flowers-stems long and the calyx non-burating.

Each of the above received an award of merit on the 1st inst.

KIRKCUDBRIGHT HORTICULTURAL.

This society held its annual show in the Town Hall, Kirkcudbright, on the 29th ult. There was a fine display of all classes of horticultural produce, although competition in some classes was not very keen. Pot plants, usually of high quality at this show, were very fine, stove and greenhouse plants being very well shown indeed. Mr. McGuffog, gardener to the Countess of Selkirk, Balmae, was first in the class for a circular group of plants, and he also led with stove or greenhouse plants and table plants. Other winners were Mr. G. Benson, Mr. J. Comrie, and Mr. D. Kelly. In cut flowers the competition was weak in numbers, but the quality was generally high. Messrs. McGuffog, J. Comrie, J. Walker, G. Benson, D. Kelly, Q. Aird, D. Walker, and J. Wilkinson were the leading winners. Fruit was excellent as a whole, and the leading winners were Messrs. J. Comrie, W. McGuffog, W. Brown, and Mrs. Gibson. In vegetables Mr. R. Middleton, a notable competitor in the shows of the district, won several first prizes, and Messrs. Comrie, McGuffog, Hannah, and W. Brown were also very successful. The amateur classes were excellent, and the competition better than in the open classes. The arrangements were good, and it was unfortunate that the forenoon was so wet and adverse both to exhibitors and visitors.

THE SOUTHERN COUNTIES' CARNATION SHOW.

The eighth exhibition was held on the Royal Pier, Southampton, on the 27th ult. under most favourable conditions as regards the weather, resulting in a record gate. As regards the show, it was also a record in the number of entries, and we have it on the authority of the judges that it was undoubtedly the best Carnation show of the year. This is the more astonishing considering the unusually hot weather preceding the show, which accounted for the absence of several noted exhibitors, including Mr. Martin Smith and Mr. Wellesley. Very fine blooms were shown by Mr. Cartwright and Mr. Herbert.

In the classes for six distinct varieties there were no less than from fifteen to seventeen competitors in each, and the quality was so good generally that the judges remarked that they had to pass by many exhibits that would have secured good prizes at the late National show. The undressed blooms shown in vases were a great improvement on last year, and made a fine display. Table decorations, bouquets, buttonholes, &c., also Sweet Peas (nearly 200 vases) were numerous and well shown.

Among numerous trade exhibits the premier position must be given to Mr. A. F. Dutton, Iver, Bucks, whose fine exhibit of American varieties secured the society's gold medal. Very little behind was the beautiful display of Begonias from Messrs. B. E. Davis and Sons, Yeovil. These were effectively displayed in glass vases with variegated Maple and other foliage, and received a silver-gilt medal.

The show was very effectively arranged, many Palms and other decorative plants supplied by Mr. E. Wills being placed on the raised centres of the tables and about the hall. The gate amounted to nearly £70. It must be very gratifying to Mr. W. Garton, who first organised this southern show, to find that it is still growing in extent and importance under the auspices of the Southampton Royal Horticultural Society.

FREUCHIE AND DISTRICT.

This society held its ninth show in Unthank Park, kindly granted for the day by Mr. John Lumsden, on the 29th ult. The show was considered to be one of the best of the series the society has held. Pot plants were very good in most classes, but by general consent the Begonias were pronounced the best yet seen at this show. Zonal Pelargoniums, Fuchsias, Petunias, Balsams, and Coleuses were also excellent. Cut flowers were good, and although comparatively few in number, the Roses were very fine. Fruit was rather inferior, but the vegetables were splendid. A considerable amount of interest was taken in the Bryce Cup for Potatoes, which was won by Mr. Alexander Bisset, and in the Glasgow Cup for pot plants, which fell to Mr. W. Morgan. Messrs. Inglis, E. Morgan, A. Finlay, A. Taylor, McCall, Page, Young, and Mitchell were among the other prizewinners.

NEWBURGH AND DISTRICT.

This society celebrated its jubilee by a very successful show at Lindores Abbey on the 29th ult. The arrangements of the committee were excellent, and the large marquee presented a fine sight with its numerous exhibits, not the least admired being the pot plants kindly sent from the gardens of Pitcairnie, Mugdrum, Parkhill, and Carpow. Messrs. D. and W. Croll, Dundee, exhibited a number of superb Roses, including some of the newer varieties. In the section for pot plants, Messrs. D. Annan, J. Spence, J. Cameron, and Arnott were the principal winners, while in the open cut flower class Mrs. Davidson and Major Williamson were the principal prize takers. Messrs. J. Simpson and Sons, Dundee, were first for Roses with a splendid display. In the fruit classes the Rev. A. Allison and Messrs. D. Annan and J. Byers were the chief winners.



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ACTON HORTICULTURAL SOCIETY.

THE thirty-eighth annual summer flower show of this society, held in the spacious grounds of Acton Park on the 19th ult., was a distinct success in every way, horticulturally and financially. The entries numbered 567, which were forty more than last year. For a group of stove or greenhouse plants arranged for effect, Mr. H. Knightley, gardener to Mrs. Spence, well won first honours with a beautiful arrangement; second, with a very creditable display, Mr. R. O. Davies. In the class set apart for four stove or greenhouse plants in bloom, Mr. Knightley again secured the premier position, Mr. P. Barlow being second.

Th prize Gloxinias of Mr. R. O. Davies were admirably flowered plants, and his plants for dinner-table decoration were much admired. As they always do, Sweet Peas, arranged in bunches, made a most effective and attractive display, Mr. M. Dunstan showing admirably and taking first place, Mr. Cautley's beautiful second prize contribution being little inferior. Good taste in arrangement, with a most effective harmonising of colour, characterised the table decorations confined to lady competitors. Here Miss Cautley was well to the front. Sweet Pea Miss Willmott, a grand flower of great substance, rich deep orange pink, almost a self, and one of the finest varieties yet sent out, was splendidly set up by Miss Cautley.

Buttonhole bouquets were a charming feature, the competition being very keen. Here the judges' awards went to Mrs. Brown, Mrs. Cull, and Miss Cautley in the order named.

The vegetable department was well represented, the cottagers' productions being superior to those staged by professional gardeners. Much and deserved interest attached to the classes for wild and garden flowers contributed by children, some good bunches of each being shown, but there was room for much improvement. The educational side of the matter is capable of far greater development in naming, arrangement, &c.

CROSSMICHAEL, SCOTLAND.

A SMALL falling off in the entries characterised this show, which was held on the 29th ult., and the committee might well consider the advisability of making the date a little later another year. The quality of the produce shown was equal to that of last year, but some sections, such as that for fruit, were weak in point of numbers. Pansies were also scarce, and Potatoes were shown by few competitors. Among the most successful competitors throughout the show were Mr. J. M'Inn, jun., Mr. W. McCreadie, Mr. A. Rennie, Mr. J. Johnstone, and Mr. Joseph Garmory.

EAST ANGLIAN HORTICULTURAL CLUB.

THE summer outing of this club on Thursday, the 20th ult., to the charming gardens of Westwick House (by kind permission of Major Petre) was a marked success. Mr. George Davison, a true hardy plant lover and more recently of Montbretia fame, met the party at the gate and conducted them round. Any attempt to individualise would practically mean repeating a herbaceous plant catalogue from the lowly Saxifrage to the massive Eremuri and Lilium giganteum. The party were able to witness some remarkable strides in Montbretia hybridising, and some startling sensations in this class of flower will shortly be sent out from here. Mr. Davison is also making great strides with new colours and large forms of the early-flowering perennial Phloxes. The glass houses, fruit and vegetable gardens were all evidences of good culture, and did credit to the staff. After a halt for tea the party started away in another direction to see wild-ings, for of all the homes of our British flora Westwick woods and dells can claim to hold a foremost position. At this latter ramble the botanists of the party delighted themselves seeking out such treasures as Monotropa. All were sorry when time was called for departure. On the homeward journey Mr. Walter Rye regarded the party with refreshments in his pretty little garden at Lammas, for which they were thankful. Thanks were accorded to Major Petre, Mr. George Davison, and to Mr. W. L. Wallis, the energetic secretary, for the pleasurable trip.

ERROL HORTICULTURAL SOCIETY.

THIS society held its annual show in the New Hall, Errol, on the 28th ult., the exhibition being opened by Lady Ogilvy Dalgleish, Errol Park. The show was one of the best yet held by the society, the competition in practically every class being keen. A feature of the show which gave much gratification to the many visitors was the display made by the non-competitive exhibits kindly lent by Sir William Ogilvy Dalgleish, Bart., of Errol Park, and by Mr. Robert Clark, Taybank. These were very fine, and reflected much credit upon the cultural skill of these gentlemen's gardeners. In the competitive classes cut flowers and vegetables were probably the best sections, but fruit was good for the season, and the pot plants shown were generally excellent. Mrs. Macfarlane had the largest number of first prizes in the cut flower section; Mr. W. Goodall in the pot plants; Mr. W. Tait had the best four dishes of hardy fruit; and Mr. D. Conacher was the winner of the greater number of first prizes with vegetables.

BATH AND DISTRICT GARDENERS' SOCIETY.

VISIT TO READING.

BATH and neighbourhood has many gardens, in which all that is best in the horticultural world is assiduously cultivated. A large number of the more progressive gardeners have formed themselves into an organisation with the somewhat cumbersome title of the Bath and District Gardeners' Self-help and Debating Society. The

organisation is young, it is vigorous, and it is enterprising. All three of these characteristics were abundantly manifested by the manner in which the first annual outing was planned and carried out. The trip took place recently, when Reading was visited, and the members and friends had the privilege of being shown over Messrs. Sutton's establishment, so vast that it may justly be regarded as a national one, and of being entertained to luncheon by the firm. The outing was an unequivocal success from first to last, and will afford pleasant reminiscences for many a day to come. Upon leaving Messrs. Sutton's grounds a visit was paid to the gardens at University College, Reading.

SCOTTISH HORTICULTURAL ASSOCIATION.

THE usual monthly meeting of the Scottish Horticultural Association was held in their rooms, St. Andrew Square, Edinburgh, on the 31st ult. There was a good attendance for the time of the year, and Mr. T. Fortune, one of the vice-presidents, occupied the chair. The exhibits on the table were both numerous and interesting. Of these there may be selected for mention the excellent named Carnations shown by Messrs. James Grieve and Sons, Redbraes Nurseries, Edinburgh; the beautiful Carnations exhibited by Messrs. T. Methven and Sons, Warriston Nurseries, Edinburgh; some very fine Gloxinias from the nurseries of Mr. John Downie at Beechwood, a good strain and well grown; some cut Fuchsias from Mr. Johnston, an interesting lot of much beauty; and, appropriate to the subject of the evening, some fine Black Currants of the variety Boskoop Giant from Miss Burton, Mavisbank Gardens, Polton. The subject of the Black Currant mite, a pest which is becoming increasingly injurious in the north, was the theme of a short address by Mr. J. Hughes, Loyal, Alyth, who has evidently studied the mite and its operations in a most careful manner. The discussion which followed was an interesting one. Mr. Hughes was thanked for his address.

LATE NOTES.

Royal Horticultural Society.—At the general meeting of this society, held on the 1st inst., twenty-four new Fellows were elected, and Mr. Charles T. Drury, V.M.H., F.L.S., gave a very interesting lecture, illustrated with lantern slides, on "Wild Sports of British Ferns," a full report of which appears on page 99. The next meeting and exhibition of the society will take place on Tuesday next, the 15th inst., when a lecture by Professor J. Craig of Cornell University on "Orchard Management" will be given, which will be illustrated by lantern slides.

The year 1904.—In his report on the "Phenological Observations for 1904" (from the Quarterly Journal of the Royal Meteorological Society) Mr. Edward Mawley, F.R.Met.Soc., V.M.H., writes: "The weather of the phenological year ending with November, 1904, was chiefly remarkable for the persistent rains in January and February, the absence of keen frosts in May, the long continuance of hot and dry weather in July, and the small rainfall during the autumn. Throughout the year wild plants came into flower behind their usual dates, but at no period were the departures from the average exceptional. Such spring migrants as the swallow, cuckoo, and nightingale made their appearance in this country at, as nearly as possible, their usual time. The yield of Wheat per acre was the smallest since 1895, while that of Barley, Beans, and Peas was also deficient. On the other hand, there were good crops of Oats and Mangolds. The best farm crops of the year were, however, those of Hay, Turnips, and Potatoes. Both Corn and Hay were harvested in excellent condition. Apples were everywhere abundant, and all the small fruits yielded well, especially Strawberries, but there was a deficient supply of Pears and Plums."

Seaside Evergreens.—All the varieties of evergreens planted near the seashore have been found wanting in a greater or less degree except White Spruce. The last severe winter was endured by this Spruce better than by any other evergreen, either large specimens or small trees composing clumps. In the spring this was recognised to such an extent that the demand for White Spruce for planting on the New England coast could not be met. This was especially the case when trees of 5 feet and upwards were required. Smaller sizes were scarce, although they can easily be procured from distant points.

Every indication points to a larger demand still for all sizes of White Spruce in the future. Poplars also have stood on the seashore remarkably well, and although they are of a rather stiff appearance, large numbers are planted every spring, and each year the numbers increase. A large percentage of these are sent out from Rochester, and it is a remarkable fact, showing the endurance of this tree, that a consignment was held up for a month in the spring, and when finally planted, after growth started in the packing case, showed no ill effects.—*The American Florist*.

Caesalpinia Gilliesii.—This handsome member of the natural order Leguminosae, if given the protection of a warm south or south-west wall, is very striking when in flower. In the warmer parts of England, notably Devonshire and Cornwall, no protection is necessary. Even when it is not in flower the bipinnate leaves are ornamental. At the present time a specimen 20 feet in height on the front of Museum No. 1 at Kew is flowering freely. The terminal racemes consist of thirty to fifty flowers, rich yellow, with very conspicuous scarlet stamens 4 inches to 5 inches in length, three times the length of the corolla. In this position the ends of the shoots are often cut back by frost. Figured in the *Botanical Magazine*, tab. 4006, under the name of Poinciana Gilliesii, it was introduced from Mendoza, South America, by Dr. Gillies in 1829.—A. O.

TRADE NOTES.

GLASS TANKS AS PROPAGATING CASES.

IN the course of their business the Chloride Electrical Storage Company, Limited, Clifton Junction, near Manchester (London office, 39, Victoria Street, Westminster), have for disposal a number of glass tanks of various sizes. These are very useful for raising seedlings, for striking cuttings, or for wintering tender plants. They do not take up much room, yet they can be made to serve a very useful purpose in any of the above ways. They are made of thick glass, so that they are not easily broken. For raising seeds, or for placing over cuttings of hardy plants it seems to us that they will prove very useful indeed. Full particulars of the various sizes, &c., may be had from the Chloride Electrical Storage Company, Limited.

WOLVERHAMPTON FLORAL FETE.

MESSRS. BAKER'S, nurserymen, Wolverhampton, inform us that at the Wolverhampton Floral Fete they were awarded a special silver cup as well as a gold medal for their exhibits.

"ELFIN" WEED KILLER.

A NEW weed killer has been brought to our notice, the "Elfin," manufactured by the Elfin Company, Kenmore, Herne Hill, London. It is soluble and not poisonous, but it possesses corrosive properties. It should, therefore, be handled with care, and not allowed to come in contact with the skin of the hands or face or with the clothing. The manufacturers also state that "the diluted weed killer is harmless to stock and domestic animals, as they will not drink it."

FORTHCOMING SHOWS.

- August 15.—Royal Horticultural Society's Meeting; Clay Cross Horticultural Show.
- August 16.—Bishop's Stortford, Calne, and Harpenden Flower Shows.
- August 17.—Dyffryn District and Taunton Deane Horticultural Shows.
- August 19.—Seascale and Lake District and Sheffield Flower Shows.
- August 21.—Warkworth Horticultural Show.
- August 22.—Rothsay and Oxford Flower Shows.
- August 23.—Shrewsbury Floral Fete (two days).
- August 24.—Aberdeen Flower Show (three days); Wargrave and Knowl Hill Cottagers' Horticultural Show.
- August 26.—Jedburgh Horticultural Show.
- August 29.—Royal Horticultural Society's Meeting.
- August 30.—Bath Flower Show (two days).
- August 31.—Ellesmere and Sandy Horticultural Shows.
- September 26.—National Rose Society's Autumn Rose Show, Horticultural Hall, Westminster (two days).

PUBLICATIONS RECEIVED.

Bulletin of the Department of Agriculture, Kingston, Jamaica; Official Notice of the New Zealand International Exhibition to be held at Christchurch, Canterbury, N.Z., during November, December, 1906, January, February, March, and the early part of April, 1907; New York Agricultural Experiment Station Bulletins.

* * * The Yearly Subscription to THE GARDEN is: Inland, 6s. 6d.; Foreign, 8s. 9d.

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AUGUST 19, 1905.

PLANTING AND PRUNING FRUIT TREES.

THE fifth report of the Woburn Experimental Fruit Farm, by the Duke of Bedford, K.G., and Spencer U. Pickering, F.R.S., contains some valuable information about planting and pruning fruit trees. We make the following extracts from the report :

The effect of cutting back at once on planting, or deferring that operation till after the first year's growth, may depend to a certain extent on the character of the subsequent seasons, but in most cases it will probably result, as it did in that of our trees, in showing a considerable balance in favour of immediate cutting back. The time of cutting back did not affect the ultimate size and vigour of the tree, but there was a large loss of fruit in cases where the cutting back was deferred, owing to vigorous growth having followed that operation when performed, and having prevented the formation of fruit-buds during the second and third years.

The general results obtained in experiments on pruning trees to different extents have been somewhat surprising. There would appear to be no very certain effect on the leaf-size, whether a tree is pruned hard or not pruned at all, and hard pruning certainly appears to be inimical to the general growth of a tree, even when we measure that growth by a feature such as the girth of the stem, and take no account of the spread of the branches or the height of the stem. It is in the crops, however, that the absence of pruning appears to the greatest advantage, for the trees which were unpruned bore crops of three times the value of those which were pruned heavily, and 50 per cent. greater than those which were pruned moderately. The increased value depended nearly entirely on the increased weight of crop in these cases ; but it is specially noticeable that the absence of pruning did not, on the average, diminish the size of the fruits. The unpruned trees, also, are by no means so straggling and unshapely as might have been anticipated. It must be remarked, however, that an absence of pruning would probably produce less favourable results in the case of varieties which were very precocious, and, consequently, were weak growers ; and in no case should we, on the strength of our present results, advocate the omission of such pruning as may be necessary to shape a tree properly, and prevent its branches from crossing and rubbing.

Incidentally we have noticed that, although a tree which is not pruned is much larger at first

than a pruned one—as regards the extension of its branches—this superiority diminishes in time, the unpruned trees being now very little larger than the pruned ones. We also notice that there appears to be a sinking of the tree into the soil as it grows. Summer pruning, shaping, or pinching seem to have been followed by no good results in the case of our trees, rather the reverse, and we should not, therefore, recommend such treatment. It may be successful in some seasons, but generally it results only in the growth of weak, unripened wood, which has to be removed in the following autumn. Pruning at different times of the year, between the fall of the leaf and the ensuing spring, has been investigated in the case of a mixed plantation, and the results show that there is nothing in favour of doing the pruning at one time rather than at another. Nor have we observed any evil effects to be produced by pruning during the severest weather.

The extent to which root-pruning checks the growth of a tree is illustrated in several of the plots. Root-pruning every year practically stops all growth, and the trees thus treated are now moribund. When the root-pruning is performed less frequently, the effect is proportionately less, and recovery, accompanied by relatively heavy cropping, begins in the second year after the operation. The mere replanting of a tree, if performed without injury to the roots, does not appear to affect it at all ; but injury cannot be avoided if the tree is above a certain size, and, in the case of the tree being exposed for some time before it is replanted, the injury appears to be very material, the tree receiving a check from which it never recovers ; or, at least, does not do so within the next nine years. The age at which a tree will best bear transplanting has been investigated in the case of bush Apples and Pears, and of standard Apples and Plums. With the bush trees, transplanting at two or three years of age yielded much better results than transplanting at one year or four years. The two year trees, on the whole, did better than the three year trees, and, considering the difference in cost between them, they are decidedly to be preferred for planting. With standard trees, those of two and four years alone were tried, and the younger trees, in this case also, did much the better. For estimating the results obtained in these cases we took the values of the crops borne during the first ten years after planting.

Our manurial experiments on Apple trees were detailed in our fourth report, and we add here only a further note as to the additional evidence supplied by the results of another year. These tend to confirm the view that manures are at last beginning to have some slight effect, though it is

still of a somewhat doubtful character. The general difference in the results for the ten years between the plots where the manure has been in excess of the normal, and those where it has been less than the normal, is only 2·5 per cent. ; but the results are more regular than when the average for only nine years was considered, and those for the tenth year taken by themselves show a difference of 11 per cent. between these two sets of plots. The results obtained on planting trees in trenched and untrenched ground prove that the latter has been more successful in our case, the advantage showing itself in the much heavier crops obtained. Although this result may be at variance with general experience, there would seem to be nothing astonishing in the fact that, where the subsoil is a stiff, unkind clay, anything which would induce the roots to penetrate into it, as trenching would, might be injurious to the tree. That this is probably the explanation of our results is borne out by the fact that we have obtained similar good results by preventing the roots from penetrating into the clay by having a layer of chalk under them.

The most remarkable of the results on planting are those in which trees were planted carelessly, without trimming the roots (and even purposely lacerating them), huddling them into small holes, making them point downwards, and stamping the earth on them violently. The planting was done both in trenched and untrenched ground. The subject has been under examination throughout the past ten years, many independent series of experiments having been undertaken, and several hundred trees having been used in them. The peculiarity of the results was that, while the leaf sizes and other features showed that careless planting impaired the vigour of the tree during the first year or two years, a recovery subsequently occurred, and that when the trees were lifted after the third or fourth season, the carelessly planted ones were found to have increased most in weight. This increase was very variable, however, for sometimes it would be a little less than that of the properly planted trees, at other times it would be many hundreds per cent. greater. The explanation was finally obtained by examining some young Paradise stocks which had been planted with their roots from 6 inches to as much as 2 feet below the surface. It was found that in the latter case the trees had grown more than those planted at the ordinary depth, although the original roots of the trees had been so injured by being buried to such a depth below the surface that they had been practically killed. The injury to these roots, however, had forced into growth dormant buds, and had given rise to a new root-system higher up the stem, and these new roots, being subject to no check in their

growth, had developed to a greater extent than the original roots of the trees, even in the case where the trees had been planted at the ordinary depth. The deeply-planted trees, therefore, ultimately overtook their properly planted fellows, though there was an interval at first while the new roots were forming, during which the improperly planted trees were lacking in vigour. The results following "bad" planting by burying the tree, are identical with those following "careless" planting, and the explanation of them, no doubt, is the same.

COLOURED PLATE.

PLATE 1280.

BEGONIA GLOIRE DE LORRAINE.

VOLUMES almost have been written on the propagation and culture of the typical Begonia Gloire de Lorraine, so that nothing more on these points remains to be said.

Its early history, however, is not so generally known. The raiser was that eminent hybridist, M. Lemoine of Nancy, the parents being the distinct and pretty Begonia socotrana (so much used by Messrs. Veitch in the production of their hybrids), and the old white flowered B. Dregei, a native of South Africa. We have been told by the raiser that the cross was effected in January, 1891, and the young plants produced therefrom flowered in November of the same year. It was distributed in the spring of 1893, but two or three years elapsed before this variety became generally grown. It is even more popular now than then, being brought into Covent Garden Market in immense quantities, and there is now scarcely a garden where it is not represented; indeed, in many cases whole houses are given up to its culture. As long ago as 1899 two sports from this variety were brought forward, viz. Mrs. Leopold de Rothschild, which originated with Mr. Hudson at Gunnersbury. In this the individual flowers are larger and of a paler pink than those of the type, as may be seen in the accompanying plate. This was given an award of merit by the Royal Horticultural Society in the autumn of 1899. A little later in the same year the white-flowered Caledonia, which was brought forward by Mr. Forbes of Hawick, proved a great attraction. In the autumn of 1901 the blush-tinted variety Turnford Hall was sent out, and it is now largely grown, being quite as vigorous in constitution as any of the forms. Other light-coloured sports have made their appearance at different places, but they are not sufficiently distinct from Turnford Hall to become popular. While referring to this group of Begonias, mention may be made of Messrs. Veitch's hybrid between B. socotrana and B. natalensis. This, named Agatha, is much in the way of Gloire de Lorraine, while there is a particularly dwarf, neat-growing form of it known as Agatha compacta.

H. P.

PRIZES FOR GARDENERS.

THE JULY COMPETITION—AWARDS.

For the best answers sent to the questions on "Gardening in Suburbs," published in THE GARDEN during July, the following prizes have been awarded:

First: Miss E. K. Franklin, 12, Queen's Road, Coventry.

Second: Thomas Hayton, Kilhey Court Gardens, Worthington, Wigan.

Third: M. Millard, Hartley Wintney, Winchester.

Fourth: Mrs. E. P. Mack, Lound Rectory, Lowestoft.

It was a matter of some difficulty finally to decide upon the winning papers, for many excellent answers were sent in. One competitor failed to give either name or address upon a very good paper, several did not confine their selections of plants to the number asked for, while a few did not answer all the questions. We draw attention to these errors, which are due to sheer carelessness, for they destroy the competitor's chances of gaining a prize, and all the trouble of the writers goes for nothing. It is curious that very few have mentioned the Japanese Anemone (*A. japonica*) as a plant for the shady border, although it is included in most lists of twenty hardy plants suitable for the town garden. This Anemone is one of the few shady border plants we know. Violets were mentioned by some as good town plants, while our experience of them as such leads us to exactly the opposite conclusion. In addition to the prizewinners the following competitors sent in very good papers. We ought especially to commend those from the first-named three correspondents: G. Robinson, The Gardens, Tanglewood, Godstone, Surrey; J. O. Keiffe, Longtown Gardens, County Kildare; M. Battiscombe, 9, St. James's Road, Tunbridge Wells; Mrs. Baillie, Meonstoke, Bishop's Waltham; H. Gardner, 37, Stanhope Gardens, Haringay, London; Miss A. Burley, Waldrons, 32, Ravenslea Road, Balham; H. B. Gaukroger, Woodcote, Fairdene Road, Coudson, Surrey; A. E. Speer, Sandown Lodge Gardens, Esher; Miss M. Agar, Hilly Mead, Wimbledon; Miss M. G. Foster, Lady Warwick College, Studley Castle, Warwickshire; C. W. Caulfield, 54, Hengist Road, Belvedere, Kent; G. Ward, 2, Garden View Cottages, Leam Terrace East, Leamington Spa; Alfred Shann, Gisburne, Prince's Park, Liverpool; T. Coffin, 37, Reckleford, Yeovil, Somerset.

FIRST PRIZE ANSWERS.

I.—The twelve Roses which bloom most freely in suburban gardens are: 1, Ulrich Brunner; 2, Charles Lefebvre; 3, Prince Camille de Rohan; 4, La France; 5, Caroline Testout; 6, Viscountess Folkestone; 7, Mme. Berard; 8, Gloire de Dijon; 9, Marie van Houtte; 10, W. A. Richardson; 11, Crimson Rambler; 12, Pink Monthly (China).

II.—A little thought will furnish plenty of material for the beautifying of a shady border during spring and early summer. Winter Jessamine and Kerria japonica are bright with gold and orange blossom in early spring. If the border is wide enough and not altogether without sunshine, some of the hardy Azaleas and dwarf Rhododendrons might be planted at the back. The white Madonna Lily might be planted among these, and would flower in June when the other bloom was over. The flowering Currant (*Ribes*) in several varieties may be planted at the back, where also tall Foxgloves and Day Lilies are quite at home, succeeding the blossoming of the *Ribes*. *Pæonies* will also succeed here—the hardy, old-fashioned sorts. The shady border is always the home of hardy Ferns; at their loveliest in early summer. Among them may be planted many choice spring-flowering bulbs—Daffodils, Scillas, Snowdrops, *Anemones apennina* and *Pulsatilla*, and *Fritillaries*. These will bloom before the Fern fronds uncurl, and later the Ferns will hide their untidy fading fronds. In the shady border Christmas and Lenten Roses (*Hellebores*), *Hepaticas*, Dog's-tooth Violets (*Erythroniums*), Primroses, *Doronicums*, and large-leaved *Megaseas* will make a brave show in the early days, to be followed by *Iris germanica*, *Campanula persicifolia* (purple and white), *Funkias*, *Thalictrum*, the creamy *Tiarella cordifolia*, golden and orange globes of *Trollius*, and quaint and graceful *Columbines*. If there is

a damp corner, *Primulus* and *Trilliums* will enjoy it. For foreground and border edging we have a wide choice. Here may be Forget-me-not, Violets, Tufted Pansies, London Pride, white fringed Pinks, Periwinkles, *Arabis*, *Aster alpinus* (starred with mauve in early summer), and *Ivies*, evergreen and cheerful. Where an opportunity occurs in the border, the pink Monthly Rose will bloom as well in shade as in sun.

III.—The class of tree or shrub that should be avoided in planting near towns is the Conifer. An exception to this rule is found in the *Salix-burra* or *Ginkgo*, which does well in suburban gardens.

IV.—The best shrubs for planting in a town garden are: 1, Weigela; 2, *Euonymus*; 3, *Rhododendron*; 4, Lilac; 5, *Berberis*; 6, *Ribes*.

V.—Plants with rough leaves are mostly unhappy in town gardens because the rough surface of the leaves becomes readily clogged with soot, dust and dirt, which would not cling to a smooth-surfaced plant. As a plant breathes through its leaves, when these pores are choked the plant naturally becomes sickly and miserable.

VI.—Twenty distinct hardy plants which flourish in town gardens are: 1, Lilies; 2, Carnations and Pinks; 3, Irises; 4, Gladioli; 5, Auriculas; 6, *Campanula persicifolia*; 7, *Hemerocallis*; 8, *Delphiniums*; 9, Perennial Asters; 10, *Helianthus*; 11, *Phlox*, (perennial); 12, *Anemone japonica*; 13, *Aquilegia*; 14, Primrose and Polyanthus; 15, Sweet Williams; 16, Canterbury Bells; 17, Oriental Poppies; 18, Tufted Pansies; 19, Sweet Peas; 20, Daffodils.

VII.—The best six room plants are: 1, *Aspidistra*; 2, *Aralia Sieboldi*; 3, *Chamaerops excelsa*; 4, *Pteris cretica*; 5, *Asplenium bulbiferum*; 6, *Davallia*.

VIII.—The six best climbing plants for a town garden are: 1, Ivy; 2, Virginia Creeper; 3, Clematis Jackman; 4, *Clematis montana*; 5, Winter Jessamine (*nudiflorum*); 6, Roses.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

August 21.—Warkworth Horticultural Show.
August 23.—Shrewsbury Floral Fête (two days).
August 30.—Bath Flower Show (two days).

The Countess of Selkirk's cottage garden prizes.—In accordance with her usual custom, the Countess of Selkirk has again given prizes for the best-kept gardens on the estate of St. Mary's Isle, Kirkcudbright. The judges, Mr. R. Service, nurseryman, and Mr. J. Mackinnon, gardener, Terregles, have made their awards, their report being a model one of its kind, giving suggestions of great value for the competitors. The prizes in Section 1 (*Balmæ* group) go as follows: First, J. M'Burnie, Little Balmæ; second, Jessie Caldwell, Dromore Cottages; third, Mrs. Beattie, The Stables. Section 2: First, Mrs. Tait, Mutehill; second, Mrs. M'Cool, The Sell; third, Mrs. Graham, Auchenhower; fourth, Mrs. Kelly, The Stell; fifth, Mrs. Dorrance, The Stell. Mrs. Dorrance was also first for the best and neatest-trained climbing plants. The following extract from the report on the gardens is of a satisfactory kind for the noble donor of the prizes: "We found them all in most admirable order, very clean and tidy, evidently greatly cared for, and showing the daily attention and interest that must have been given them. Upon the whole, the standard of taste and culture shows a distinct advance this year."

Henry Eckford Testimonial.

The contributions to this fund up to the evening of Saturday, the 5th inst., were as follows: Previously acknowledged, 912½s.; *The Florists' Exchange* Fund (W. Atlee Burpee, W. N. Craig, G. H. Rowdon, *The Florists' Exchange*), 96½s.; Mr. G. Mitchell, 1s.; Mr. J. W. Moss, 10½s. and Mr. H. Sickelmore, 2½s.



BEGONIA GLOIRE DE LORRAINE.

A new mountain park for Glasgow.—As was recorded in THE GARDEN at the time, Mr. A. Cameron Corbett, M.P., some time ago made a gift to the citizens of Glasgow of what will eventually be one of its finest parks, and at the last meeting of the Corporation of Glasgow a letter was read from the same munificent donor to the effect that he had purchased a part of Ardinglass Estate for the purpose of handing over a portion of the estate to the Corporation for the benefit of the citizens. In his letter Mr. Cameron Corbett states that his object is to give his fellow-citizens a mountain territory which should be their own for all time, and his general object is "to preserve a grand and rugged region for the best use of those who love the freedom of the mountains and wild natural beauty." Mr. Cameron Corbett makes it a condition that the revenue of the property should be diverted to the purpose of making the property more accessible, whether by ferry or other means. The portion of Ardinglass to be handed over is the promontory which lies between Loch Long and Loch Goil. This is well known to all who have visited the district. The Lord Provost voiced the feeling of the council in expressing their appreciation of the gift.

Flower, Fruit, and Vegetable Show at the Crystal Palace.—On Saturday, August 26, the annual Co-operative Flower, Fruit, and Vegetable Show will be held at the Crystal Palace. The schedule is a comprehensive one, and a really good show is expected. Apart from the general list of prizes offered by the Festival Society, special prizes are being offered by Messrs. Sutton and Sons, the Agricultural and Horticultural Association, and others. Entry forms may be obtained from the secretary, Flower Show, 22, Red Lion Square, London, W.C. The Agricultural Organisation Society is this year, for the first time, presenting a certificate of merit to all the first prize winners.

A trial of Tulips.—The council of the Royal Horticultural Society have decided to hold a trial of Tulips of all kinds at the society's gardens at Wisley during the season of 1906. The trial will be open to amateur and professional gardeners, as well as to the trade. At least six bulbs of each variety entered must be sent. These must be duly named and accompanied when possible by a short description of the origin of each variety, and a note of the class of the flower to which it is considered to belong. If by post the bulbs should be addressed to the Superintendent, Royal Horticultural Society's Gardens, Wisley, Ripley, Surrey; or, if sent by rail, the Superintendent, Royal Horticultural Society's Gardens, Wisley, to Horsley Station (London and South-Western Railway) on or before November 1 next. The bulbs will be grown under exactly similar conditions, and will be inspected by members of the Narcissus and Tulip committee, who will recommend awards to the council. Other flowers, fruits, and vegetables of which trials will be held in 1906 will be announced later.

A successful competitor at Kingskettle.—A capital show in connexion with the Kingskettle and District Horticultural Society was held on the 5th inst., when a medal presented by Messrs. Dobbie and Co., Rothesay, for the most successful exhibitor was awarded to Mr. J. Cellars, who had won no fewer than forty-three prizes—thirty firsts and thirteen seconds. Mr. Cellars took prizes in the classes for pot plants, cut flowers, and vegetables.

Nicotiana glauca.—Now that one has given this new annual a fair trial, both for pots and outside work, a few remarks can be made respecting it. In the first place, I consider it far inferior to the accounts given of it. Certainly the colour is pleasing, and that is all. With me the flowers are very small, and have not the slight, it scent. I have a good lot of it here. The first plants were in pots, and the rest bedded out.

It has made luxuriant growth, two or three plants measuring as much as 3 feet through each. Had the flowers been as large as those of *N. affinis*, and with half the scent, it would have been a great acquisition.—J. HIGGINS, *Rdg., Corwen.*

Like many others, I bought a packet of seed of this annual, and the plants grown from it are now in bloom. The flowers are of a dull, uninteresting red. It is altogether a poor thing.—W. R.

Olearia gunniana.—The accompanying illustration shows *Olearia gunniana* growing in the garden of the Hon. Mrs. Marker, Combe, Honiton. Our correspondent writes that the photograph hardly does justice to the original, which was recently finely in flower.

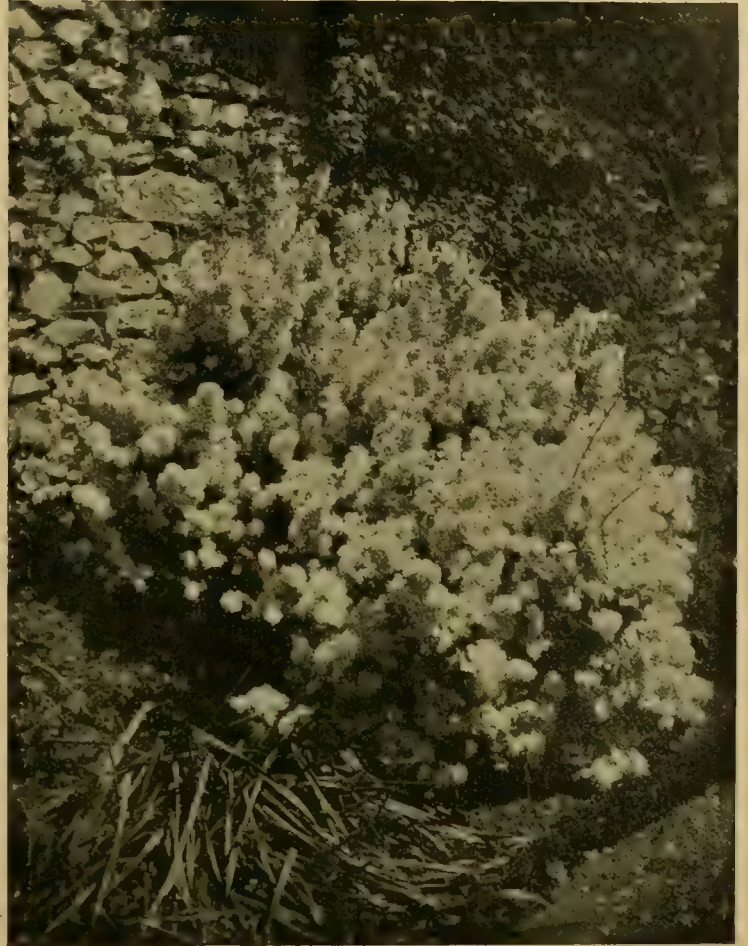
Plant life lectures at Edinburgh. On the 5th inst. Professor Balfour delivered the first of a short course of Saturday evening lectures dealing with the popular aspects of Oecology. The large lecture hall of the Royal Botanic Garden was filled with an appreciative audience. In illustration of the lecture numerous views of vegetation were shown by means of the electric arc lantern. At the next lecture the adaptations of flowering plants to the environments in which they grow will be discussed.

RECENT PLANT PORTRAITS.

THE *Botanical Magazine* for August contains portraits of

Meconopsis integrifolia.—Native of Western China and Tibet. A fine double plate of this extremely handsome Papaverad, seed of which was sent to Messrs. Veitch by their collector, Mr. Wilson, and whose fine, large, most freely produced pale yellow flowers created such a sensation when shown by its introducers at several of the exhibitions of the Royal Horticultural Society, both in Vincent Square and in the Temple Gardens. It is, unfortunately, only a biennial, as are nearly all the members of its handsome family, but, as it has already ripened seed freely in this country, it is to be hoped that it has come to stay as a conspicuous ornament to our gardens. It has also the great additional merit of being perfectly hardy.

Impatiens Holstii.—Native of East Tropical Africa. This exceedingly bright and beautiful Balsam was introduced into cultivation by Messrs. Haage and Schmidt of Erfurt. It resembles the well-known *I. Sultani* in form of flower, but is of



OLEARIA GUNNIANA AT FOOT OF WALL.
(From a photograph kindly sent by the Hon. Mrs. Marker.)

freer habit of growth and more conspicuous by the bright orange-scarlet colour of its blossoms. It seems likely to be most valuable as a summer bedder, and forms an excellent companion and most admirable contrast to the much larger rosy bluish-flowered *I. Oliveri*, which is also of much more robust habit of growth.

Tetradlea thymifolia.—Native of East Australia. A very pretty and free-flowering greenhouse shrub of slender habit of growth, with numerous four-petalled rosy purple flowers.

Plectranthus crassus.—Native of Nyassaland. This is a winter-blooming Coleus-like stove plant, producing long spikes of small white and blue flowers.

Odontoglossum ramulosum.—A native of Colombia. This is a small-flowered Orchid, whose flowers are yellow with brown centres.

The *Revue Horticole* for July 16 contains a portrait of

Perovskia atriplicifolia.—A native of Afghanistan. This is an exceedingly pretty half-hardy labiate shrub, producing freely long, branching spikes of small Salvia-like flowers of a lovely shade of Nemophila blue.

The August number of *Revue de l'Horticulture Belge* contains portraits of the well-known peat-loving shrub,

Andromeda speciosa, with pure white globular flowers, and the beautiful coppery yellow hybrid *Rose Soleil d'Or*, which I do not consider to be at all a well-chosen or accurately descriptive name. It was raised by M. Pernet-Ducher of Lyons by crossing the species Persian Yellow with the Hybrid Perpetual Antoine Ducher.

W. E. GUMBLETON.

THE ANNALS OF THE LITTLE RED HOUSE.

VII.—CHRYSANTHEMUMS AND TOMATOES.

WE had so much energy the first year that, in spite of very hard work, we determined on growing Chrysanthemums and Tomatoes, and even went as far as dreaming of the possibility of forcing a few Strawberries. We found, however, that one small greenhouse was practically useless, and that having been heated with hot air instead of water, it must be entirely refangled if we were to benefit at all in the ensuing winter. We were advised to put in a horse-shoe boiler, which we did at once at the cost of about £10, and it has answered admirably. We thought of pulling down the greenhouse, which was certainly badly placed, and building it up again, but as the estimate for the work from a local builder came to more than what a perfectly new house would have cost, we thought it had better remain where it was.

Meantime I had grown some plants of Best of All Tomato in a frame which the master had made, and they were potted off, ready to go into the greenhouse at once, while a few plants were put against the south wall to take their chance. I found a good deal of attention was necessary, and in this I had had no experience, the gardeners having always seen to these and the Chrysanthemums. But the Tomatoes were really quite successful, and we had plenty for ourselves and our neighbours, and quantities of Tomato sauce and chutney at the end of the season. Plenty of ventilation day and night, and soft water, and occasional doses of Clay's Fertilizer seemed all that was required.

Being a little late, I moved some of the plants thickly covered with fruit into the dining-room windows, where they were a great delight to the passing villagers.

The Chrysanthemums were still more trouble, for we had a hot summer, and watering twice a day was necessary. I found the repotting earlier very arduous, particularly as I was so extremely conscientious about soil. I find, now I have an excellent gardener, his process is much more rough, and really with better results; but the amateur who is a keen gardener works from books, which, of course, dwell much on detail. However, the Chrysanthemums were quite satisfactory as far as a winter supply went, though I confess the art of disbudding was to me then as great a mystery as the cultivation of the Orchid now is, and ever will be. The pleasure of attaining to good results repays you for all the labour, and I am sure I have never cared as much for any Tomatoes or Chrysanthemums I have had since. Indeed, when shown the following year a row of sticks with a huge blossom on the top of each, like those paper atrocities sold in the streets, I turned away my head to conceal my vexation from my elated gardener, and felt I would rather have a *soleil d'or*, a golden mass of flowers from which to cut *ad libitum*.

In the autumn, too, I took cuttings from Geraniums and Heliotropes, of which we had a fair stock, and we carried out our idea of forcing Strawberries by taking first layers, rooting them in 2½-inch pots, and

repotting when the roots began to show. We put them in a partially shady place, watering well, taking off runners and dead leaves, and giving weekly doses of liquid manure. By Christmas we had about fifty good plants, which were then put on to shelves in the greenhouse, and we had in April some pounds of good, sound fruit—Vicomtesse de Thury and Noble being the sorts used. I believe Royal Sovereign is the best; but we had none of these in stock. I find the great trouble in a garden is to get

WEEDS AND RUBBISH BURNT, and this is one of the most important things. However large a place is, it is never large enough for rubbish-heaps, which are a source of danger and very unpleasant exhalations in hot weather. I never can see why, when a gardener cuts a Cabbage or Cauliflower, the stumps are left to stand in unsightly rows on the ground, occupying valuable space. Everything should be burnt at once, two days a week in fine weather being appointed for this necessary and sanitary work. Then there is plenty of excellent material to dig into exhausted or heavy soil when wanted, and vermin is destroyed which these rubbish heaps harbour more than anything.

AUGUSTA DE LACY LACY.

TREES AND SHRUBS.

LIGUSTRUM JAPONICUM.

PRIVETS play an important part in English gardens, and one of the best of the smaller members is the species under notice. It is a native of China and Japan, and is rather widely distributed, so that it is to a certain extent variable in character, though not so much so as to justify the multiplicity of names given to the, in many cases, slight variations. The type forms a plant 3 feet to 4 feet in height by as much in diameter, and makes a splendid evergreen for small places, as it can be kept in bounds with little trouble. The leaves are rather stout in texture, ovate in shape, 2 inches to 3 inches in length, dark shining green above and paler beneath. The large panicles of pure white flowers appear in July, and are produced on the terminals of the main branches. Unfortunately, they have that peculiar odour common to the Privets, and which is very objectionable to many people. This plant, however, does not flower very freely, and as it forms a distinct and attractive evergreen the flowers can very well be dispensed with. It requires a light, warm soil with a fair amount of moisture, and would probably be none too hardy very far north, though it is worth planting wherever it will thrive. It is easily increased by cuttings of half-ripened wood taken in August and inserted in sandy soil in a cold frame.

J. C.

SPIRÆA DISCOLOR (S. ARLEFOLIA)

THIS is a strong-growing and free-flowering plant requiring plenty of room for its proper development. When at its best it is a large bush 8 feet to 10 feet high by about 6 feet in diameter, and when clothed in July with the light, graceful panicles of white flowers it forms a welcome addition to our flowering shrubs. It is practically indifferent as to soil to grow in, being equally at home in a moist spot as in a dry, sandy place, though the flowers are borne more freely when the plant is a little starved. The leaves are alternate, from 2 inches to 3 inches in length, rounded in shape with a cuneate base, and rather deeply toothed. They are of a dull green colour, and woolly beneath. The individual flowers are very small, but are produced in such quantities

as to compensate for their small size. The habit of the plant is robust, and it should be allowed plenty of room to grow, as it quickly establishes itself and makes strong growths 6 feet or more in length in a season. It requires little pruning, merely cutting away the older wood being sufficient, and no attempt should be made to keep the plant to a certain shape, as it grows very informally. Cuttings taken in winter and inserted outdoors root readily, and soon form good plants. It is a native of North-West America.

J. CLARK.

SCHIZOPHRAGMA HYDRANGEOIDES.

AGIN and again a shrub has been introduced into British gardens under this name, but it has nearly always proved to be *Hydrangea altissima*, and it was thought that the true plant had only been introduced within the last year or two. This, however, is wrong, for the true plant flowered during July in the garden of Mr. B. E. C. Chambers, Grayswood Hill, Haslemere. Mr. Chambers curiously enough received his plant from Japan under the name of *Hydrangea altissima*, just the opposite to what is usually the case. Seen side by side there is no chance of mistaking the two plants, for they are different both in flowers and leaves.

Schizophragma hydrangeoides is a Japanese plant with reddish, slender, scandent, or trailing stems, and more or less oval leaves 5 inches to 6 inches long and 3 inches to 4 inches wide, with stalks 2 inches to 3 inches long. The upper surface of the leaf is deep green, the underside somewhat glaucous and pubescent, the hairs being very dense on the veins. The inflorescence is large, and consists of numerous small, cream-coloured, Privet-scented flowers and a few cream-coloured bracts which are borne singly on long slender stalks or are occasionally attended with a second very minute bract. The main bracts are 1½ inches to 2 inches long, and nearly an inch wide with an acuminate apex. A second species of *Schizophragma*, (*S. integrifolia*), has been introduced by Messrs. Veitch from China. This differs from the Japanese species by having larger and thinner leaves, with very few, if any, hairs and larger bracts. The genus *Schizophragma* is very near *Hydrangea*, differing mainly in the number of styles, *Schizophragma* having one and *Hydrangea* several.

W. DALLIMORE.

THE LILIES.

(Continued.)

LILIUM SPECIOSUM.

CULTURE AND USES.—This group of Lilies forms the mainstay of the autumn-flowering series, and they are the most popular of the whole race. Their cultivation is an easy matter. Shelter and a warm position are the main objects to consider, and most gardens afford sites wherein *speciosum* Lilies will do well. In the extreme North and the Midlands in late seasons such forms as *cruentum*, *Melpomene*, *Krätzeri*, and *rubrum* cannot be depended upon to flower well out of doors. For such cold districts *album novum*, *roseum*, *punctatum*, and the European form of *rubrum* are more likely to succeed, as their flowering season is from one to three weeks earlier than the rest of the group. Many Scotch gardeners grow the plants in tubs and place them in the borders when 1 foot high, starting them into growth early in the year under glass, so that the stems are well developed and the stem roots pushing fast when planting time arrives. This

practice is very useful, and to be recommended for cold, bleak situations, and in cases where the Lilies are to grow amid hungry shrubs that would impoverish the soil.

Where grown entirely in the open shelter from late spring frosts and the early frosts of autumn is necessary, and for general purposes Fir boughs would serve better as a temporary shelter than shrubs would do as a permanent one. The latter would rob the soil too much to be of real service. One cannot make the soil too rich for these Lilies. Rapid growth is important, so much so that in adverse seasons the best cultivated plants will thrive where others fail.

The group is so universally employed for the decoration of conservatories in autumn, and pot cultivation is so thoroughly understood, that there is but little need to describe the treatment very fully. As with most Lilies, we prefer to employ large pots that would contain several bulbs rather than small ones. Cooler conditions, free from fluctuations, are thus engendered, and the plants suffer from no check whatever. The best forms for pot culture are *album novum* and *Kratzeri* of the whites; *Melpomene*, *cruentum*, *roseum*, and the recently certificated and very beautiful *magnificum* of the coloured forms. Once established in their pots they will appreciate liberal treatment, and it is preferable to give them farmyard manure in solution rather than artificial manures. It is best to begin feeding when the buds are visible. The huge masses of stem-roots each plant makes require close attention as regards watering and surface mulching, for once these are checked the plants make little or no progress. The surfaces of the pots should always be screened from the sun's rays. Always plant 8 inches deep in the open, and leave a hollow around the stem for a mulch of rich soil as the stem-roots form. In wet, heavy soils, in which *L. speciosum* regularly decays, place small inverted pots under each bulb, or a few bricks set edgewise will help to drain the soil around the scales. The treatment of retarded *L. speciosum* agrees mainly with that of *L. longiflorum*, save that the temperature should be 5° higher throughout, and that more pot-room will be required.

III. — THE GARDENS OF WARLEY PLACE.

(Continued from page 92.)

THE borders of Pansies, and especially of *Anemone fulgens*, were in full bloom at the time of my last visit; the Anemones as fiery-red as at Pau or at Biarritz. Here were also collections of herbaceous Phloxes, of *Campanulas*, *Iris*, *Epimedium*, *Corydalis*, of herbaceous *Geranium*, *Funkia*, *Papaver*, &c., &c. The whole is surrounded with walls and hedges, and encircled with precious plants, such as: *Illicium religiosum*, *Hymenanthera crassifolia*, *Romneya Coulteri*, *Eucalyptus Gunnii*, *Genista ferox*, *Eugenia Ugni*, various *Magnolias*, *Erica arborea* and *E. australis*, *Phyllirea mœdia*, *Anthyllis Hermannæ*, *Fontanesia nana*, all the hardy Fuchsias, *Gerbera abyssinica* and others, *Euonymus Bungeanus*, *Forsythia europæa*, *Cistus* in variety, *Tropeolum speciosum*, *Vitis Coignetice*, *Solanum crispum* and *jasmínoides*, *Grevillia rosmarinifolia* and *Billiardieri*,

Stantonia hexaphylla, *Eucryphia Billiardieri*, *Abutilon vitifolium*, *Rhamnus californicus*, *Pittosporum Eugenioides*, *Edgeworthia papyrifera*, *Colletia cruciata* and others, *Ribes speciosum*, *Cotoneaster pannosa* and *Franchetti*, *Pinus Montezumæ*, *Olea europæa*, *Elæagnus Frederica*, *Succa fruticosa*, &c.

There are also, scattered about among the borders, the following rare or interesting plants: *Plagianthus betulinoides*, *Incarvillea compacta*, *Lithospermum Gastoni*, *intermedium*, *graminifolium*, *rosmarinifolium*, *oleæfolium*, *Convolvulus lineatus*, *Veronica filiformis*, *canescens*, *Viola Christii*, *tommasiniana*, *Amenopsis grandiflora*, *Morisia hypogæa*, *Dryas lanata*, *Phyteuma comosum*, *Luxuriaga erecta*, *Falkia repens*, *Acanthosonchus cervicornis*, *Vella pseudo-Cytisus*, *Antirrhinum glutinosum*, *Erodium chrysanthum*, *Saponaria lutea*; *Jankæa Heldreichii*, *Schizocodon soldanelloides*, *Conandra ramondiioides*, *Cyananthus lobatus*, &c.

It would be too long a task to give even a faint idea of the collection of hardy bulbous plants, but among them are *Crinum Powellii* and *Moorei*, *Pancratium*, and many species not usually classed as hardy in the London district.

In the plant houses is a nearly complete collection of type *Pelargoniums*, of which Miss Willmott makes a special study, also of *Mesembryanthemums* and *Crasulaceæ*, &c.

But it is the Alpine garden that has made the great reputation of Warley, and indeed justly. It is a very fine work, bearing on its face, even better than all the rest, the stamp of the artist who conceived it. It is not a garden; it is a valley hollowed in the mountains, and in this valley is shown a synthesis of the whole flora of mountainous regions. Plants of the Alps are side by side with those of New Zealand, plants of the Andes shelter those of Greenland. Kashmir is next to California, and the summit of Kilimandjaro joins hands with the heights of the Pamir.

At the bottom of the valley runs a little stream; it murmurs a wild and plaintive song. Hidden, as one finds one's self, among the masses of flowers, one feels as if transported into the midst of the great landscapes

of Scotland or the Alps of Switzerland. The space occupied is over an acre; the valley runs from north-west to south-east. At the lower end is a lake that receives the stream after it has passed through a series of picturesque and well-planned gorges. This garden is partly formed of calcareous rock for the benefit of the plants requiring lime, and partly of granite for those that dislike it. It was made barely fifteen years ago, but now looks perfectly natural, thanks to the abundant vegetation with which every part is clothed.

The plants are placed according to their needs, but at the same time so as to secure good effect and pleasant harmonies of colouring. Trees and shrubs furnish the heights of the



ANOTHER VIEW IN MISS WILLMOTT'S ROCK GARDEN AT WARLEY.

valley and the edges of the precipices, while graceful trailing plants cover the larger rocks, and the smaller saxatile plants nestle among the stones.

There are some strong bushes of *Erica*, and among them a species not yet classified, that greatly puzzles the botanists. There are *Phyllireas*, *Cotoneasters*, *Junipers*, *Pines* of species from the Alps and the Cordilleras, the Himalayas, and the Andes; various *Ulex* and *Daphne*, *Muhlenbeckia*, *Chorisia*, *Kalmia*, *Rhododendron racemosum*, *glaucum*, *ferrugineum*, *odoratum*, *hirsutum*, *ovatum*, *chamæcistus*; *Kalmia*, *Azalea*, *Andromeda*; *Rose* species, *Genista*, *New Zealand*



ROSE FELLENBURG IN THE GARDEN OF SIR JAMES BLYTH, BLYTHWOOD, STANSTED, ESSEX.

Veronicas. All these, in grown trees and great bushes, form the background of arborescent vegetation. H. CORREVON.

(To be continued.)

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

GARDENIAS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I shall be obliged if you will let me know in your columns what compost suits Gardenias best, also a little information upon their treatment. I shall also be pleased if you could tell me the best manner to pack the cut flowers to undergo a journey from twenty-four to thirty hours, and the composition used by florists to steep the flowers in when cut to ensure their lasting. M.

[The compost suitable for Gardenias will, of course, to a certain extent, depend on the size of the plants, as when potting into large pots it must be much rougher than for small ones. In growing Gardenias many cultivators prefer to propagate their own plants, and this is generally done by cuttings of the half-ripened shoots put singly into small well-drained pots of sandy soil, and kept in a close propagating case till rooted, which will be in about three weeks or so. When rooted they must be hardened off, by being inured to the air of an ordinary stove, when they

can soon be shifted into larger pots. The points of the shoots must be pinched out from time to time in order to ensure a bushy habit of growth, and the structure in which the plants are kept should during the summer have a night temperature of 70°, with a corresponding rise during the day. The plants should be so situated as to get as much light as possible, but at the same time they must be shaded from bright sunshine. By the end of June the plants will, if they have done well, be ready for their final shift, which may be into pots 6 inches or 7 inches in diameter. After this, if they are kept well syringed, and the structure in which they are growing is shut up early in the afternoon in order to husband the sun-heat, they will make rapid progress. By the end of August they must have more air in order to harden them off, and very little, if any, shading will then be needed. During the winter a minimum night temperature of 55°, with a rise of 10° or so during the day, is very suitable for them. As the spring advances the flowers will quickly open in the higher temperature. Throughout all stages of growth, except during the winter, Gardenias are greatly benefited by a liberal syringing, as it tends to keep the foliage green and healthy, added to which the plants are often attacked by insect pests, and a liberal use of the syringe will help to keep them under. If bug or scale effect a lodgment on the plants, they must be laid on their sides and syringed with one of the many insecticides which are effectual in destroying these pests. After flowering, any straggling shoots may be shortened, and the plants shifted on into pots about 3 inches larger than the others. They must again be encouraged to grow freely during the summer, and be hardened off towards autumn. The flowering season in the spring may be regulated by the temperature maintained at that time, and it is generally the custom to bring them on in batches in order to ensure a succession of bloom. The flowers should be packed in shallow boxes, as they travel much better in this way than when in layers. To send by rail, several of these shallow boxes may be put into a deeper one for convenience. If a little fresh Moss, nearly dry, or the finest wood wool is put over the bottom of the box in a thin layer and covered with tissue paper, which must also extend around the sides, the flowers must be arranged thereon as closely as possible, and the box finished off with a few layers of tissue paper on the top. In packing flowers many make the mistake of being too cautious, that is to say, they put them too loosely together,

the consequence being that they move about and become bruised beyond recognition. A firm hand is necessary in packing flowers, and practice is most essential. Flowers that are intended for travelling should be cut a few hours before they are packed and placed in jars of water, and they will then be well charged with moisture and better able to bear the journey than if cut and packed at once. We know of no composition to steep the flowers in in order to ensure their lasting.—ED.]

ROSE FELLENBURG.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I enclose a photograph of the Rose Fellenberg growing on the verandah of the dairy here. This dwarf climbing Rose always flowers most profusely, but this season it has been one mass of bloom. J. RICHARDSON.

The Gardens, Blythwood Lodge, Stansted, Essex.

WHAT IS BISHOP'S WEED?

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Will your Edinburgh correspondent "Victim" kindly enlighten southern readers as to what plant he refers to under the name of Bishop's Weed. Mention of this appellation to a British plant in a recent issue of THE GARDEN was the first time I had ever heard of it, although in England we have an endless variety of common names for plants. I gather from the description of the plant given by "Victim" as being a great weed pest in his lawn, that he refers to what we know so well as a lawn weed, the Yarrow (*Achillea Millefolium*). That common plant has in many cases south during hot, dry seasons, when the grass has been burnt up by the heat, given veritable carpets of close green foliage, but all the same only in patches, thus making the lawn look as spotted as a leopard's skin. It is a terribly aggressive weed, and spreads rapidly. If the weed "Victim" refers to be not Yarrow, will he give us its botanical name? As whilst such names are often derided as unpronounceable, they have the merit of being of universal use, whilst common names vary very much in localities. A. D.

THE ROSE GARDEN.

AMONG THE RAMBLING ROSES.

IN the Royal Gardens, Kew, the Rose dell is a home of Rambling Roses. In the course of a few years they have transformed an unsightly corner into a most delightful spot. The Rose Flora is one of the most vigorous, making strong, drooping shoots, which are laden with rich pink, compactly-formed blossoms. This variety is freely planted in the Rose dell in its season, and none makes a finer display. The huge bushes of Crimson Rambler are aglow with brilliant colour, and white Foxgloves peep between the blossom-bent shoots. The 4-feet to 5-feet high bushes of Fellenberg, the finest of the Chinas, smothered with their rich rose-coloured flowers, fill a large space, while close by is *R. multiflora*, its growths studded with small white flowers. Carmine Pillar and *Rosa moschata* compete for the highest point in a neighbouring Holly bush, and give an added grace and beauty to its rich green leaves. Alberic Barbier, with loose, white-petalled, yellow-centred blossoms, that become quite white with age, clambers over rough logs and old tree-roots thoughtfully placed at its disposal. Paul Transon is equally happy under similar conditions, and its salmon and pink flowers, like those of a delicately-tinted

China Rose, add life and beauty to the dead brown stumps. Una is magnificent; the large single white flowers, with a central mass of yellow stamens, are freely produced on the vigorous shoots and make a perfect picture. Psyche, with flat, almost Camellia-like pink blooms, hangs over the broad green path that runs through the dell, while Claire Jacquier, under the shelter of a Cedar's branches, displays its orange buds and pale flowers without stint upon shoots quite 8 feet high. The thick red growths springing from the base of the plant indicate that it is thoroughly at home. Crimson China Roses, Foxgloves, and other plants make a delightfully informal edging where the Ramblers will leave them room to grow. The Rose dell in the Royal Gardens, Kew, is a thing of beauty, a glade with cool green paths, and banks where climbing, clambering, and rambling Roses fill every nook and corner with flowers of multi-coloured form and hue, and exhaling a fragrance that makes the air a veritable pot-pourri.

ROSE CRESTED PROVENCE.

THE fragrant old Cabbage Rose will always remain a favourite, and the above lovely variety, which is possibly a sport from it, in like manner is much esteemed. This, too, is very sweet. The peculiar crested Fern-like formation of the calyx gives the flower a most unique appearance. I think nothing is more beautiful than a spray of this Rose with the centre flower full blown and surrounded by the quaintly crested buds. P.

HALF-WILD ROSES.

THERE is a growing demand for Rose bushes of a Bramble-like nature, especially for planting upon large estates where space is of little importance. Massive bushes once seen of the charming Roses that lend themselves to this form of growth are not soon forgotten, the memory of their brilliance and beauty lingering long after the blossom has fallen. Where space permitted, beds cut out upon a spacious lawn, and a plant or two of a kind planted in each bed, would give unfailing delight. There should be no set style of growth, merely allowing the plants to grow at will, naturally forming themselves into floral mounds in a very short space of time. Nothing could be more agreeable than to wander among some such mounds upon a lovely June day, the sense of all artificiality gone, and the pleasure remaining of a vision of almost wild beauty such as one may see in isolated cases in some old stone-quarry or in an opening in a wood. The plants themselves from the very first respond to this style. You plant them 4 feet to 6 feet apart in good, well-trenched soil, and thus they are left to grow as they like, not even trimming the shoots back the first year. As soon as they are established they send up those fine basal shoots which are the life of the plant, and the spreading, bending growths accelerate the development of such shoots. The variety is almost limitless, but a selection may be helpful to intending planters. Of Penzance Briars—the Sweet Briar with brilliant flowers, whose introduction we owe to the late Lord Penzance—the best and most brilliant are Anne of Geierstein and Lady Penzance, but the whole sixteen varieties are interesting, although not quite distinct enough,

Then a mass of the gorgeous Carmine Pillar, and another of the charming Briar Tea named Una, which if once planted will be wanted in other places either for hedge or shrub.

The intense yellow single Austrian Briar and the fiery red single Austrian Copper are deserving of special beds; so also are the double white Scotch Rose and the large-flowered single Scotch altaica, which yields its lovely blossoms from base to summit. Other delightful single Roses are macrantha, moschata nivea, Polyantha grandiflora, The Dawson Rose, the showy Musk Rose, R. Brunonii, and Jersey Beauty. Then what can we say of Rosa sinica Anemone? Its huge blossoms of brilliant rose-pink are perfectly lovely, and not the least part of its attractions are the shining foliage, larger and even more handsome than that of its parent, the Cherokee Rose or R. sinica. Flowering later is the Waltham Rambler; the huge trusses of Apple blossom like Roses are most picturesque and beautiful. Then we have, still later, the type of a remarkable race of Roses, R. wichuraiana. This race is destined to play an important rôle in the Rose world, and it would not be safe to predict its possibilities. The flowers of the type are a pretty white, with an abundance of golden stamens, and the fragrance is very sweet.

A few tree-stumps should be put in the centre of a bed of this variety to keep its very procumbent shoots off the ground. Another gem is R. wichuraiana rubra, flowering with the type. It is of beautiful colouring, ruby red, and produced in huge bunches. For table decoration this sort has few equals, the foliage, a bright grassy green, aiding the effect considerably. As I said at the outset, the variety is endless, and I only name these kinds as being my favourites. A mass of Electra should be found in this wild garden, also Leuchtstern, and from the Ayrshire and Evergreen Roses we might cull Félicité Perpétue, Flora, Leopoldine d'Orleans, Bennett's Seedling, Ruga, and Virginian Rambler, resting assured that we had got the best of them. As late autumn-flowering clumps Bardou Job and

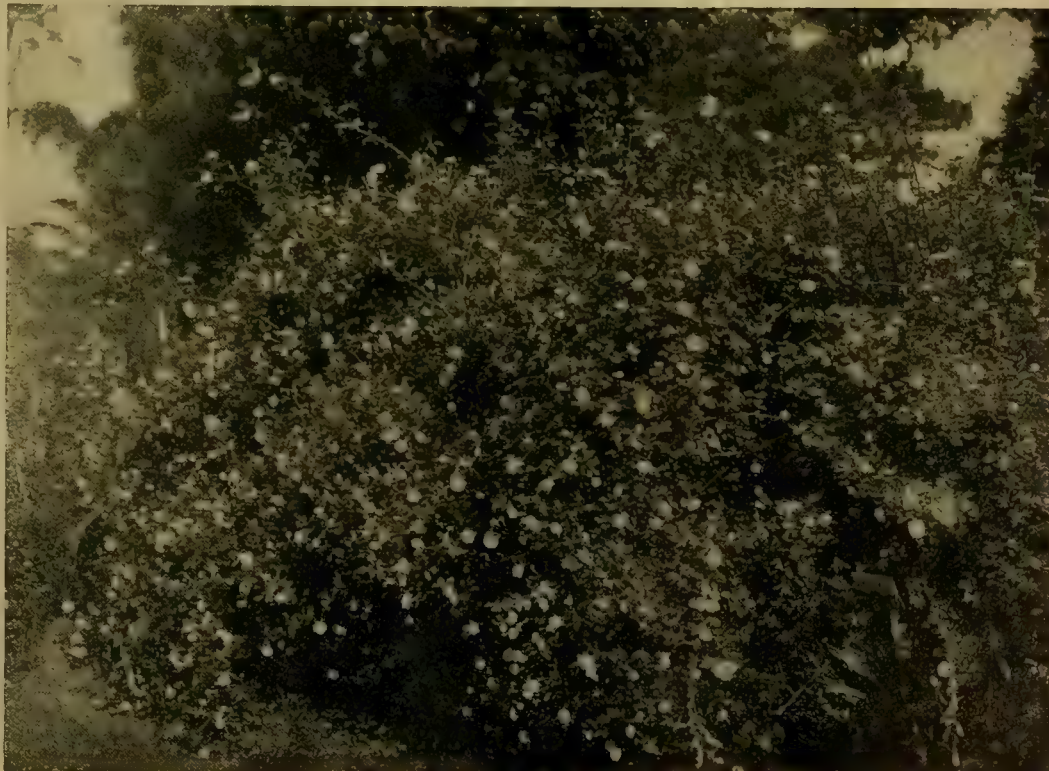
Gloire des Rosomanes should be planted, and a few bushes of Pissardii would give the garden a bright appearance in August and September.

Some newer Roses well adapted to the culture recommended are Morgenroth, a charming sort resembling Carmine Pillar, but perpetual; Gottfried Keller must be seen, as description does not do justice to its lovely tints; Mrs. Orpen, a glorified macrantha; Bellefleur and Maharajah, two gorgeous single Hybrid Perpetuals. It will be seen that the variety is large enough, the difficulty being to find space. Should it be impossible to plant a bed of a kind, a long border free of other shrubs and well trenched would make a grand place for the sorts I have named. It would be necessary to give the plants an area of at least 20 square feet to 40 square feet each if their individual beauty and free development is desired.

PHILOMEL.

COMBINATION OF EARLY-FLOWERING ROSES.

FOR all who can afford the space, large masses of one variety of Rose are always best, but where accommodation is limited, pretty effects may be secured by judiciously combining those kinds that flower simultaneously. As the centre to a good-sized bed, I would suggest about three or four extra strong plants of Carmine Pillar trained in pillar form, around these a circle of the hybrid Sweet Briar Amy Robsart, followed by circles respectively of Hybrid Sweet Briars Anne of Geierstein and Lady Penzance, with another ring of the double white Scotch Rose, followed by yet another of Rosa ferruginea (syn., rubifolia), which would give an interesting band of coloured foliage if well cultivated. To complete the arrangement, a band of the Austrian Briar Harrisoni, followed by an edging of miniature Provence de Meaux or Spong might be used. If the size of plant be regulated when planting according to its position in the bed, a pretty, interesting, and effective, almost conical, mass of blossom would enliven the garden during the early days of June.



ROSE FLORA IN THE ROSE DELL IN THE ROYAL GARDENS, KEW.

ROSE CAROLINE TESTOUT.

How is it that this Rose maintains its high reputation? One is not particularly attracted to it when seen in the exhibition box among its more perfect neighbours. If form were to be the pre-eminent quality, as some individuals would maintain, this variety would be a long way down the list, for it certainly cannot claim the regular outline of its great rival, La France. Yet the fact remains that in the garden it has superseded the old favourite. The erect habit of the plant, the long flower-stalk, the exquisite bud, and the immense shell-like petals of the expanded flower all conduce to the undoubted popularity of the variety. Another point worthy of consideration to all who require quantities of cut flowers is that it is quite a week earlier than La France. By giving it a sheltered spot it might be had ten days in advance of other H.T.'s.

ROSE GEORGES PERNET.

(POLYANTHA)

THIS is a beautiful little Rose, quite one of the best of this interesting class of dwarf perpetual-flowering edging or bedding Roses. The colour is peach, shaded yellow, and the blossoms, so freely produced, are rather large for their class. I think these Roses are not sufficiently prized. They make charming edging plants for the kitchen garden or carriage drive. As with all Roses, the ground should be well prepared for them by trenching, and if some good material, such as burnt garden refuse and pig manure, be worked in with the subsoil, some splendid bushes will be produced which may either be hard pruned annually or moderately pruned with the object of making large plants, for these Roses, although diminutive in blossom, will develop into plants equally as large as any Tea Rose. P.

NOTES ON
HARDY PLANTS.

HEUCHERA SANGUINEA

A CONSIDERABLE difference of opinion is expressed about this hardy plant. In some gardens it is reported that it either does not bloom satisfactorily or is very shy in this respect, while the colour varies very much. I have been growing it from the first, and have proved all the foregoing statements to be correct. When grown in North Hants, in an exposed position the blooms were frequently destroyed by late frost just as they appeared above the foliage, and the same has occurred in this garden when the plants are growing in open situations. About three or four years ago I planted strong plants at the foot of a low wall facing south. Now they bloom freely and are most satisfactory. This year the slender sprays have been very charming, and when out of bloom the close foliage is very ornamental, especially on the rock garden. We have the deep red form, which was shown so well some years ago at the Temple Show in large masses and attracted much attention. Recently I saw the pale pink form of this a mass of flower in a small garden in Chard.

This is sold from a stall in the town on market days. These Heucheras are readily raised from seed sown in a box or pan in early spring, and the plants bloom the next spring if planted out from the box when large enough to handle. J. C.

THE GENUS LEWISIA.

IN addition to the four species mentioned on page 368 by Mr. Irving, all of which are doing well with the Co-operative Bees at Neston, there is another pretty species also in cultivation, namely, *L. pygmaea*. I have not seen the latter in flower, so am not able to give a description, but I understand that it is not one whit behind its compeers in beauty and elegance. We have also a

The former is very vigorous, and has long, massive spikes of bell-shaped flowers of a pale blue colour, which appear in early summer. In our garden it is most vigorous, and is not fastidious as to soil. On a narrow bank at the foot of a Yew hedge we have large masses of it in a semi-wild state. Associated with the common Wake Robin the pink and blue go well together, and need no attention except to clear off the ripened foliage each year. *S. peruviana* is not often seen in the open garden, and is considered to need some protection. This may account for its scarcity. Still, it is a most desirable kind, and so distinct that many would not think it was a Squill except for its foliage. The flowers are a deep blue and arranged in an irregular Pear-shaped pyramid; they have white stamens. Early in June I found this in large patches 1 foot or more across in a cottage garden near where I reside, and it has been quite as good for the last three years. The position is high, the soil well drained, and it remains in the open without protection.

J. CROOK.

Forde Abbey Gardens, Chard.

FRUIT GARDEN.

THE JEFFERSON PLUM.

OF American origin is this famous Gage Plum; in fact, it is sometimes called American Gage. It is one of the best dessert Gage varieties grown in this country, and succeeds best as a wall tree. It may also be grown as a standard or a pyramid. As the illustration on the next page shows, it is an excellent variety for pot culture. The photograph of this tree was taken in Mr. Leopold de Rothschild's garden at Gunnersbury House, Acton, where quantities of fruit trees in pots are grown to perfection. For full details as to the culture of Peaches, Nectarines, Cherries, and Plums in pots readers should refer to THE GARDEN for June 3 last, which contains Mr. Bedford's first prize article on this subject.

The Jefferson Plum is a large, oval-shaped fruit with a slight suture; the skin is greenish yellow, becoming golden yellow, often faintly reddened on the sunny side, covered with a thin white bloom. It has a rich yellow flesh, which is juicy and almost free from the long pointed stone. The flavour is rich and luscious.

THE PERSHORE PLUM.

IN the Pershore and Evesham districts there is no more important fruit grown than the Pershore, or Egg Plum as it is commonly termed. At the present time quantities of the green fruits are being sold in the local markets, and some also are being forwarded to the large towns. The crop was supposed to be a very small one, and in many plantations this is the prevailing state of



WHITE LILIES IN A COTTAGE GARDEN.

(In many a cottage garden the white Lily flowers in the way it is shown, and it is not often that the stems become diseased. The reason of this is, no doubt, that the bulbs remain undisturbed from year to year.)

sixth sort under the name of *Calandrinia* (Lewisia) columbiana. Whether or not there is a true species bearing this name I cannot say, but so far I have failed to detect sufficient difference between the last-named and *L. leana* to warrant botanical distinction.

Neston, Cheshire.

E. HORTON.

TWO LATE-BLOOMING SCILLAS.

AMONGST bulbous plants Scillas hold a foremost place, and bloom over a long season. The two kinds under notice are *campanulata* and *peruviana*.

affairs, but there are others where the trees are heavily laden, and this, too, in situations which do not apparently offer any special facilities. At the present rate of gathering and marketing it seems probable that a large proportion of the crops will never be allowed to ripen, as the demand is fairly good for the green fruits. A few growers maintain that there is no profit in selling green, owing to weight and size being below the average; on the other hand, the Pershore Plum quickly becomes over-ripe, and it loses quality then very rapidly. Besides, the markets are soon overstocked, and prices fall to an extremely low level. Perhaps the best time of all is when the fruit is about half ripe; it is excellent then for cooking or preserving, especially the latter purpose; in fact, some large jam makers contend that it is unsurpassed in general usefulness.

It is strange that nothing seems to be known about the origin of such a distinct variety. Some friends of mine, resident in this district for many years, regard it as a wildling which has been increased both by seed and suckers, but chiefly by the latter means. I am told that it comes quite true from seed, but have had no chance of testing this, though I have not observed many variations from the type. It appears to make a first-rate stock for other Plums on all the heavy lands of this part of Worcestershire, and several varieties that have not proved satisfactory upon the ordinary nursery stocks here do well on the Pershore Plum as a root. There is some remarkable peculiarity in the variety as regards constitutional hardiness and fertility which few others possess in a similar degree.

R. L. CASTLE.

GOOSEBERRIES

THE superb display of Gooseberries made at the Royal Horticultural Society's hall in Vincent Square on the 1st inst. by Messrs. James Veitch and Sons may not be inaptly described as a "Gooseberry annual." It is not merely that the collection yearly evidences the great number of varieties in commerce, and for Gooseberries such considerable variation in appearance or flavour, as also the capital culture bestowed on them at Langley to enable the firm to present such high-class samples, but it even more strikingly shows the faithful service rendered by the Gooseberry and the high confidence which can be reposed in its productiveness. We



A POT-GROWN TREE OF JEFFERSON PLUM.

might almost say of Gooseberries that, come good or bad seasons, they never fail us. This year, for instance, we have to lament a very short crop of Apples, Pears, and Plums, in spite of the brilliant promise of very abundant crops the spring

from 2lb. to 10lb. out to consumers per post or rail perfectly ripe, so that each morning while Gooseberries last they may enjoy delicious ripe fruits on their breakfast tables and at other times during each day. What a boon to fruit

bloom gave. Were these fruits—and most important fruits they are—as responsive to our care and culture as Gooseberries are, how different would our annual fruit reports be! Messrs. Veitch's collection also showed, as such collections do yearly, that not a few, but practically all, varieties are fruitful. True, there are degrees of production in them, but all are more than less reliable producers, and that is indeed a great deal. It is with all this knowledge of Gooseberry excellence and cropping yet a matter for regret that the great mass of the people never do have the chance to taste a really good fruit when ripe, hence the demand for them for dessert is greatly limited. Really the Gooseberry suffers from two primary features. First, it is a fruit that can be, and is, consumed in enormous quantities in a green state; and secondly, because gathering the fruits green and marketing them is so profitable, and also gives relief to the bushes early in the season. Growers of the fruit for sale plant almost only varieties that give large green fruits early, and such ones as when the fruits are ripe have little flavour. Even these, as a rule, are gathered when but half ripe, hence the consumer of these, the best he can obtain in the market, finds for dessert purposes they are exceedingly disappointing. Could the ordinary consumer of market ripe fruits have been privileged to taste of the best flavoured and ripest of many of Messrs. Veitch's samples, they would have experienced an entirely new sensation so far as Gooseberries were concerned.

Possibly some day an enterprising market grower may plant by thousands bushes of Langley Gage, Langley Beauty, Golden Gem, Red Warrington, and others of the best flavour, and then send them in small boxes of

lovers that would be!

The many half bush, cordon, or flat-trained bushes staged at the back of the group showed how with other than the stereotyped old bush form of culture it is possible to produce truly wonderful crops on the more restricted and trained forms of plants named. The Langley show of trained plants proved to be an object-lesson to many who love good Gooseberries.

A. D.



FRUITS OF JEFFERSON PLUM. (Reduced.)

GARDENING FOR BEGINNERS.

SIMPLE HINTS.

GOOD ROOM PLANTS.—If one is to grow plants successfully in rooms, it is necessary in the first place to have a proper selection of plants. Everyone knows that the green and variegated-leaved *Aspidistra* are the best. The India-rubber Plant (*Ficus elastica*) succeeds well in rooms, and so does the variegated form. *Aralia Sieboldii*, with its bright green, deeply-cut leaves, is also an excellent room plant. The Norfolk Island Pine (*Araucaria excelsa*) is one of the most effective, and, at the same time, one of the easiest to keep in good health. Of Palms, perhaps the best is *Latania borbonica*; its broad, fan-shaped leaves are very handsome. Other Palms more or less satisfactory (according to the treatment they receive) are *Kentia fosteriana*, *Chamærops humilis*, and *Rhapis flabelliformis*. Among Ferns, *Pteris tremula* is always to be relied upon to keep fresh and green. *Adiantum Capillus veneris*, too, is quite happy as a room plant. The Bird's-nest Fern, with its broad, rich green leaves, thrives well, and the Stag's-horn Fern (*Platycerium alcicorne*) may be grown with every hope of success. *Pteris cretica* and its pretty varieties are invariably satisfactory. Altogether a fair number of Ferns may be used. Among flowering plants, *Vallota purpurea* (the Scarborough Lily), various other bulbous plants, such as Hyacinths, Tulips, and Daffodils are most useful. Fuchsias, Pelargoniums, Musk, and Creeping Jenny are all suitable. Flowering plants such as these cannot be expected to grow well if kept in rooms all the year round. They should be grown in a greenhouse and brought in the dwelling-house when in flower, or else be grown in a window-box or in pots in the window. *Grevillea robusta* is a plant of graceful habit and elegant foliage that may be grown in rooms. Some *Dracænas* may also be made use of.

Cultural Hints.—The soil must never be allowed to become waterlogged, which it is liable to do if the drainage is not effective. Always give ample drainage. The soil should contain a quantity of silver sand and broken crocks, for these materials help to keep it sweet. When the pots are well filled with roots the plants must be carefully watched, for it is probable that some of the lower leaves may begin to turn yellow. This would indicate the want of more soil, so the plants must be given larger pots, or, if they admit of it, they should be divided and each part placed in a pot of suitable size. The best time of the year to pot plants in rooms is in spring, for then they are beginning to make fresh growth and quickly root into new soil. Careless watering is usually the cause of room plants dying, and without efficient drainage it is impossible to water correctly. Wait until the soil seems slightly dry and the plant, if lifted with the hand, feels light; then fill to the pot rim

with water two or three times to make sure that all the soil is thoroughly moistened. Do not give more water until the soil seems rather dry again. During winter room plants do not need water for weeks together sometimes; in hot, summer weather they generally need watering about twice a week. One can lay down no rule, but this will serve as a guide. When leaving home for a few weeks, those who have room plants are often at a loss to know what to do with them to keep them in good health. The best thing to do is to give them a good watering just before leaving, and place them in a cool, shady room in bowls containing water about an inch deep.

Jasmines are sweet, and *Cotoneasters* and *Pyracanthas* are bright with scarlet berries in winter, but the sites should be well prepared and deepened, as a half-starved plant struggling to climb a pole would have a ludicrous effect.

Herbaceous Calceolarias.—Sow seeds of a good strain now in sweet soil very lightly covered with sand. It is best to give the soil in the pan a good watering first and sow the seeds thinly on the damp soil. Cover the pans with a square of glass, and place in a shady frame. When the little plants are large enough to handle prick off into other boxes. The plants must always have a cool treatment, safe, of course, from frost. Fine specimens may be had in 7-inch pots by shifting the plants on from time to time as they require more room. Equal parts of loam and good leaf-mould or old manure with a free admixture of sand will suit them. This is one of the few plants which is not improved by very firm potting. The plants soon lose colour if placed in the sunshine. To obtain seed the flowers must be fertilised with the camel's hair pencil, selecting the best flowers only.

The Shrubby Calceolarias.—Years ago I had a fairly good collection of these. They were distinct from the usual bedding kinds, had better flowers, and were of a dwarf bushy habit. I remember one called *Golden Gem* was a lovely pot plant, just the kind of plant that would show to advantage in the cottager's window, or if grown to a good size would make a fine conservatory plant. The herbaceous *Calceolaria* is an annual, but the shrubby kinds are perennials. If anyone has a good strain it would, I think, pay to develop it.—W.

The Best Bearing Apples in a Bad Fruit Year have in our experience always been of the *Codlin* type. In many districts Apples are scarce this year, but when one does come across a well-cropped tree it generally belongs to the *Codlin* family. They have always been good bearers, and if well nourished they do not seem to mind carrying a heavy load, and they are excellent for cooking.

Fragrance in the Garden.—A garden without fragrance does not fulfil its mission. Earlier in the season we had a feast of the perfume of white Pinks, now the prevailing odour comes from the beds and borders of Stocks, and in the gloaming when the sun has gone the sweet fragrance of the Night-scented Stock will come in through the open windows. Just now, too, the spicy flavour of Lavender is conspicuous, and besides these special things there is the mixed odour of many flowers, which is even more grateful to the weary worker in his restful moments than the stronger scent of Lilies or other flowers. There is a pleasant fragrance also in foliage, especially of such plants as Thyme, Balm, Myrtle, Geraniums, &c. *Mignonette* will be, of course, in every



SOME GOOD ROOM PLANTS.

Roses for Poles.—Pole or pillar Roses are lovely when the right kinds are chosen and one can plant them round the margin of the lawn or group them in open places in the shrubbery. For retired spots the Penzance Briars are attractive, and when the flowers are over they are bright with hedges. *Reine Olga de Wurtemberg*, *Bouquet d'Or*, *Aimée Vibert*, *Celine Forestier*, *Ophir*, *Climbing Captain Christy*, *Gloire de Dijon*, *Claire Jacquier*, and there are many others good for this purpose, and besides Roses there are other useful pole plants. *Honeysuckles* and

garden, for it has a habit of sowing itself, and as a rule these self-sown plants are very hardy and vigorous. Musk is another cottage garden plant which has been neglected of late in better-class gardens. I once had a Rose garden where Musk grew in tufts among the Roses, where the mingled fragrance of Roses and Musk in the evening often drew visitors to the garden.

Some Vagaries of Plant Life.—There are curious anomalies in Nature. Just now several seed merchants are worried about a case where a farmer sowed good seeds of a particular kind of Swede Turnip, and though the seeds grew well the plants refused to form bulbs, and produced nothing but green leaves just like an ordinary Swede, and only fibrous roots. The anomaly comes in when seeds from the same source and stock are doing the right thing on other farms. At present we are inclined to think it is a question of soil and climate, but experiments are being carried out which will help to elucidate the matter. The vagaries of plant life are common, I might almost say the world is full of them. Many have come under my own notice, and other cultivators could tell the same story. Some years ago I bought half-a-dozen plants of Rudbeckia Golden Glow, which is a double-flowered form of *R. laciniata*. The first year they flowered well, every flower being double. Now they have all gone back to the type, there is not a double flower among them. When living in Norfolk a good many years ago, I had a large vinery containing a mixed lot of Vines, among them being one Vine of the Black Frontignan, and one season one spur produced a bunch of white Grapes exactly like, and of the same flavour, as the White Frontignan, but afterwards reverted back to the black kind again. I have known of one similar case where a Vine produced black and white Grapes on the same Vine. This and other similar freaks may be classed among the marvels of plant life. A Peach tree which produced both Peaches and Nectarines I saw some years ago in Worcestershire.—W.

The Banana (Musa Cavendishi).—There is a paragraph going the rounds of the cheap Press (this being the big Gooseberry season) stating that the Banana would die in a lower temperature than 100°. This, of course, every gardener knows is nonsense. Many British gardeners were growing and fruiting Bananas before a single bunch of fruit was imported, and fruit ripened very well in an ordinary stove temperature of 65° to 70° at night. The Banana is no stranger in this country, and years ago it could be seen in the London parks bedded out as a sub-tropical plant. There are several varieties. *Musa Cavendishi* is the one commonly grown, and it is one of the easiest to cultivate. It may be grown in pots, tubs, or planted out in a bed of good soil. I have never grown it without bottom-heat, and I think some root warmth is necessary. When the clusters of fruits are out the plant dies back to the base, but in the meantime suckers are shooting up, and these started in bottom-heat soon develop into fruiting plants. With liberal treatment it will take about twelve months from the sucker to the fruits.—W.

Cassia corymbosa.—Yellow climbing plants are not very common. I have lately seen this plant very effective in a cool conservatory, planted in the border, trained up the wall, and afterwards up the roof, where it associated well with *Plumbago capensis* and *Bougainvillea glabra*. It is an old plant. I used to grow it in a pot as a specimen plant, in which condition it flowered freely, and occasionally done duty in a collection of stove and greenhouse plants at a show.—W.

Utilising Fern Balls which have Failed.—In buying Japanese Fern balls sometimes one gets hold of a bad case, and quite a number fail to grow. Out of about 125 in a case we had this year forty failed. We have filled up the balls

with seedling Ferns, such as *Adiantum Capillus-veneris*, &c., by dibbling them in sufficient numbers to clothe the ball. From present appearances we are inclined to think the Japanese will not send any more Fern balls. We shall make them at home.

Thuja gigantea.—This makes a very handsome lawn tree, and grows very freely to a considerable height; but large specimens are somewhat difficult to transplant, though young plants will do well if properly attended to with mulch and water. Very often in dealing with trees and shrubs which do not move easily, sprinkling overhead every afternoon is better than heavy watering at the root. Shading, too, is beneficial when planted late.

Decorating Side Walls and Stone Steps.—If not covered with something, terrace steps are very ugly. We have seen the walls covered very prettily with several forms of evergreen *Cotoneasters*. Planted outside and encouraged to grow over the stonework they soon spread, and have a very dressy and natural appearance. *C. microphylla*, *congesta*, and *horizontalis* are suitable varieties.

Tomatoes: Why do they Crack?—For the same reason that other fruits, such as Grapes, Gooseberries, Cherries, &c., crack. The fruits get hide-bound through drought during the growing season, then when they get a better supply of moisture the skins burst under the pressure. Very often this cracking may be accelerated by giving liquid manure very freely. To prevent cracking aim at regular steady progress throughout.

GARDENING OF THE WEEK.

FLOWER GARDEN.

BEFORE the flower-beds begin to wane in beauty and beaten down with bad weather note carefully any errors committed either in using unsuitable plants or in the arrangement of them so as to avoid similar mistakes in future, while, on the other hand, striking contrasts or harmonious combinations should also be as carefully noted for repetition—with variations—in coming years. Endeavour now to formulate a rough general plan for next summer planting; a fair idea can thus be formed of the plants to be utilised and the approximate number required. This facilitates the work of propagating considerably both autumn and spring. If a stock of such plants as *Alternanthera*, *Coleus*, *Iresines*, *Meibomia*, *Antirrhinum cordifolium*, *variegatum*, *Konigia variegatum*, &c., was not reserved at planting time, the points of the shoots now being pinched should be used for cuttings. Placed in a close pit or frame they will quickly strike and produce a succession of nice sappy cuttings, forming a much better nucleus for a stock for wintering than plants lifted from the beds in autumn. A few *Lobelias* should be cut down to induce them to throw cuttings from the base of the plants. *Verbenas* should also be propagated whenever suitable cuttings are available. An early batch of these will produce good cuttings for standing over the winter.

DAHLIAS.—Any choice, new, or scarce variety can easily be increased by cuttings of short-jointed stiff side shoots, which are now in good order for putting in. These will form nice little tubers by the winter.

VIOLAS.—Where these have received liberal treatment during the recent drought suitable cuttings will now be available in quantity, so they should be inserted firmly in drills of fairly sandy soil in a partly shaded border, choosing the young shoots from the base of the plants in preference to those produced higher up the stems. The points of flowering shoots are useless as cuttings. Some of the young growths will already have small roots attached. Preserve them intact. They are a step ahead of their rootless companions.

TUBEROUS BEGONIAS must be well supplied with water—varying it occasionally with weak liquid manure—should dry weather prevail, for it must be borne in mind that it is a moisture-loving plant. All pods must be picked off unless wanted for seeds, and assist them in every way towards prolonging their blooming season.

Any vacant spaces which may occur in the herbaceous borders through plants going out of bloom should be filled up with various plants specially reserved for the purpose. I find late spring-sown *Antirrhinums* and *Tobaccos* and late-struck *Marguerites* and *Salvias*, among others, work in usefully and bloom late.

JOHN ROBERTS.
The Gardens, Tan-y-bwlch, North Wales.

INDOOR GARDEN.

CHRYSAANTHEMUMS.—If large flowers are required, buds are now being eagerly watched for. The timing of the buds, if to be open by a certain date for shows, is a very important matter. Inexperienced growers can often obtain useful hints from one or other of the catalogues issued by well-known nurserymen. If earwigs cause any trouble by eating the young leaves, place a few old hollow Bean-stalks between the pots, or invert small pots with a little moss in the bottom here and there on the stakes. Either of these form an excellent trap, which must be examined every morning. The earwigs are easily blown out of the Bean-stalks. Take care to secure all growths against strong winds. Remove all suckers and weeds from the pots.

RICHARDIAS.—For early flowering and where grown in pots all the year round these will now need attention. Shake off a good part of the old soil and repot, using a compost of fibrous loam, leaf-mould, dried cow manure, and sand. Place *R. africana* (ethiopia) singly in 6-inch pots, or three in 9-inch or 10-inch pots. Six-inch or 7-inch pots are large enough for *Little Gem*, *chilidsiana*, &c., unless exceptionally large clumps are grown. If it is desired to increase the stock, remove the suckers and pot up into small pots. Stand them all for a week or two at the back of a north wall or in a house having the same aspect. Syringe if the weather is bright and dry. Water having been gradually withheld from *R. elliptica*, most of the growths have died off. Knock the tubers out of the pots and place in sand, or they can be stored in the pots as they are in a dry shed or under the stage in a cool house.

EDINGS.—In the show houses there are usually places, such as the edges of the beds or borders, and often the edges of the staging, where a few low-growing or creeping foliage plants can be used to give it a more finished appearance. These should be renewed about the end of the month, so that it will last in good condition through the winter. A few of the most suitable plants for using in this way are *Panicum plicatum*, *P. variegatum*, *Tradescantia zebrina*, and a number of *Selaginellas*. The cuttings can be inserted fairly close together in shallow boxes and placed in a close frame till rooted. Air can then be gradually admitted, and the plants transferred to their permanent positions.

GENERAL REMARKS.—As soon as *Caladiums* show signs of decay, remove them to an intermediate house and gradually reduce the supply of water. Prick off some of the old soil from the tops of the *Anthurium* pots and pans, packing up with fresh turfy loam, peat, and sphagnum moss. The *Geenera exoniensis*, started in shallow boxes, are ready for potting up singly in small pots. Give *Codæums* (*Crotons*) the benefit of all the sun and light possible. Allow each plant plenty of room, and syringe several times daily. A supply of *Lily of the Valley* can be kept with little trouble till the end of the year with retarded crowns. It is usual to place the order for delivery fortnightly or monthly as necessary. Potted up and kept dark for a few days, they flower in about three weeks. Never allow the pots to get dry.

Royal Botanic Gardens, Kew.

A. OSBORN.

FRUIT GARDEN.

LATE MUSCAT GRAPES.—There is always a great demand for the White Muscats, and everyone aims at keeping up a supply over as long a period as possible. For long keeping it is essential that the bunches be perfectly finished, and this fact should be borne in mind in the subsequent treatment of the Vines till the Grapes are cut. Laterals must be removed before they become long enough to need cutting out with a knife. The bunches must not, however, be exposed directly to the sun, else they will become brown. It is also of importance that the foliage is retained in a healthy condition as long as possible. During very hot weather a little weak lime-wash syringed on the glass will be of assistance in effecting this object. Watering the borders must be done with greater care now than at any other season. Any neglect in this matter is likely to be attended with complete failure in regard to long keeping. Where the borders are confined to inside, no difficulty need be experienced in keeping them in proper condition, but some provision should be made for covering outside borders during long spells of wet weather, which prevents long keeping, and also considerably affects the flavour of the Grapes. No stimulants should be used when watering after the berries commence ripening.

RIPE GRAPES.—Such varieties as *Black Hamburgh* and *Madresfield Court* will not remain long in good condition after they are ripe, but by judicious management their season may be prolonged. During hot weather the ventilators may be thrown wide open all through the day, leaving sufficient on at night to ensure a free circulation of air, but when the weather is wet the pipes should be warmed a little, and if the top and bottom ventilators are slightly open the atmosphere will be kept dry. The glass may be shaded as advised for Muscats. Examine the bunches daily for decayed berries, as if these are not removed at once decay will spread right through the bunch at a surprisingly rapid rate.

FIGS.—Trees on which the fruits are swelling are taking abundance of moisture at the root. Two or three times a week is not too much for trees carrying heavy crops if the borders are full of healthy roots. Use the syringe freely among the foliage, especially if red spider is present. Stopping must be regularly attended to. Strong growths in particular should not be allowed much freedom. It will also be advisable to remove suckers, which rob the trees of much energy and are a direct cause of fruit dropping. Gradually reduce the supply of moisture when the fruits are ripening. The early trees in pots may be

re-potted now if necessary. If the trees are in full-sized pots, the balls and roots must be reduced and re-potted into the same pots, which should be well drained. Good fibrous loam, with plenty of old brick rubble and a little crushed bones, will form a suitable compost. Plunge the pots in ashes after potting, and syringe the trees morning and afternoon. This has been a favourable season for outdoor trees, and, if they have not suffered for lack of moisture at the roots, good crops should be gathered. Stop and regulate the shoots, but do not expose the fruits to the direct rays of the sun. E. HARRISS.

Fruit Department, Royal Gardens, Windsor.

KITCHEN GARDEN.

ONIONS.—It would be advisable to seize the first opportunity when the ground is in good order and sow the Onions that are to be for early use next year. If the ground was prepared as recommended in a former calendar, the only necessary work now will be levelling and making firm before drawing out the drills 16 inches apart and 1 inch deep. As far as possible let the surface mould used for covering the seed be fine, and this result is best procured by drawing the earth into the drills with the feet. One plan is to apply a good dose of soot or fresh lime all over the Onion plot, and this acts both as manure and purifier. Then rake over the ground very lightly in a direction parallel with the rows. Much raking should be avoided, as it tends to make the surface hard or caked, greatly hindering the young Onion plants from getting through the soil. Giant Rocca is a remarkably fine variety for sowing at this time, being hardy and good in flavour, but unfortunately this variety, like many others, bolts in some seasons, and it is to the season we must look for the main cause of this. Sutton's Perfection is another good winter Onion, being large, shapely, yellow-skinned, of excellent quality for the table, and therefore bound to become a standard variety.

CAULIFLOWER is a vegetable most of us like to have ready for use as early in the season as possible. Cauliflowers, like Onions, when subjected to sudden changes of weather, bolt badly; then spring-sown plants are brought into requisition, and, as a rule, these prove more reliable. Notwithstanding this, where space is available in cold frames, well aired and covered according to outside temperatures, young Cauliflower plants can be successfully brought through the winter, and with congenial spring weather can easily be made ready for cutting. Early London is hardy, of faultless quality, and always ready for cutting at an early date. Sutton's Magnum Bonum forms a good successor to Early London. I have not sown it sufficiently often to conclusively prove its merits as a hardy variety, but it is undoubtedly an excellent Cauliflower for supplying fine heads from July onwards. The heads are large, pure white, and of excellent flavour. A plot of ground should be chosen on some sheltered border with a southern aspect on which to sow the Cauliflower seed. A bed is preferable to sowing the seed in rows. If the seed is not sown too thickly the young plants can be transferred to their winter quarters without injury.

CELERY.—Continue to remove the bottom leaves and suckers, and tie up young plants when ready for earthing up, as recommended in a former calendar. Put more earth to the rows of Celery that were prepared for sowing some time ago. It is most important that the soil be finely broken up early in the day, and that both soil and Celery plants should be perfectly dry when the additional soil is placed round the plants.

LEeks planted early in the season must be freed from weeds if they abound, and have their surroundings well stirred with the Dutch hoe previous to giving them a good dose of liquid manure when the ground is moist. Those in trenches will also be greatly benefited by a copious supply of some stimulant. Like many other gross feeders, they succeed best if given a change of food. Liquid from the tank, soft water, guano, and nitrate of soda will all produce gratifying results when judiciously applied. J. JEFFREY.

The Gardens, St. Mary's Isle, Kirkcubright.

ROSE GARDEN.

SEASONABLE NOTES.

PRUNING FAST-GROWING ROSES.—These, including the Crimson Rambler and its progeny, wichuriana Roses of the Dorothy Perkins family, Evergreen Roses such as Félicité Perpetue, and Noisette and Tea Roses such as Reue d'Or and Gloire de Dijon, may now be pruned. If this important work is carried out now, not only do we aid the thorough ripening of the remaining growths, but we also relieve ourselves of much work in the busy spring months. Where the Roses are on arches or pergolas, they should be taken down and their growths well spread out upon supports, such as hurdles or any temporary article. Some assistance should be accorded the operator, the one having on some stout gloves, and the other prepared with knife, secateurs, and pruning saw. If gardeners fully realised the importance of this summer pruning they would make special effort to carry it out. So much depends on age and variety as to how the Rose should be pruned, but, as a general rule, cut away all wood more than three years old, and preserve all the young roots that spring from near the base. Sometimes an old shoot will produce a strong, vigorous young cane about half-way from its base, and, if this shoot is wanted, by all means retain it, but if there are several others equally good do not hesitate to cut out the old one, as more will soon follow from the base. Spread out the new wood as the plant is raised upon the arch or pillar or wall, so that the utmost advantage may be taken of the sun and air. I do not advise shortening the young growths retained; certainly not at

present. Leave them to grow as much as they will, fork up soil round about the plants, and give liberal waterings once a week if the weather continues dry. These Rambler, and especially those on walls, must never feel the need of moisture at the root. After pricking up the soil give a mulching of short manure with a minimum amount of straw in it. Peat-moss litter is a good mulching article after it comes from the stable. I thoroughly believe in the virtue of bone-meal; a handful or so given now and hosed in will act marvellously on the plant by next season. A climbing Rose is only in a really good vigorous condition when it is providing for the future in the shape of new wood as well as producing blossom. One often meets with a fine old plant one mass of bloom, but few new shoots, and the end of that plant is very speedy. It would have been better to cut out several of the shoots before flowering time, which would have the effect of starting new growths from the base.

CUTTINGS OF TEA ROSES, made from well ripened wood, may be inserted round the edges of 5-inch pots, using a very sandy soil. Stand them on an ash base in a cold frame under a north hedge or wall, and sprinkle frequently the first few days. Keep the leaves on, but remove those at base of cutting. If possible take off a heel with the cutting. The best wood is that which has just blossomed, in which the eyes are just on the move again. After rooting, which will be in about six weeks, stand the pots in full sun, taking care they do not suffer from drought.

POT ROSES FOR EARLY FORCING may be still repotted or top-dressed. Use a compost of two parts good loam to one of well decayed firm spent Mushroom-bed manure, and a shovelful or two of sand and bone-meal or half-inch bones to each barrowful of soil. Stir all well together, and keep in a dry open shed. Rambler Roses for flowering in April and May should still be repotted, but it is not well to give them too large a shift. Pot firmly, and stand out on a bed of ashes, plunging the plants a little on the sunny side. Withhold water the first few days. All pot Roses would be the better for repotting now than later; they have a longer period wherein to lay hold of the new soil.

RAMBLER ROSES IN POTS are now so much in request, and one is not surprised considering how elegant they are in appearance. Plants should be secured in early autumn, as the stocks often run low in the spring. Plants from the open ground potted early in October may be had to bloom in March and April, but this I shall allude to before the time of potting.

TEA ROSES planted by greenhouse walls or floors are making splendid growths. They should be liberally watered until the end of September. After this water should be withheld and every effort made to ripen the wood before the coming winter.

POT ROSES of the thin or buttonhole class that are intended to flower in September should have all bloom-buds pinched off until the middle of September. The buds found after that date will slowly develop, some opening in November and others in December if the plants are placed in a greenhouse with the slightest warmth—just enough to keep them moving. Safrano, Papa Gontier, Queen Mab, G. Nabonnand, Mme. Falcot, Coralina, &c., are splendid sorts for this purpose. P.

THE KITCHEN GARDEN.

ASPARAGUS CULTURE IN SUMMER

WHEN the season for cutting ceases many beds are neglected, but, in my opinion, that is the time the roots require extra food, moisture, and support.

At this time of the year, even in ordinary weather, the beds require food, and though moisture may be provided by rainfall, the plants are benefited by liberal supplies of a good fertiliser. As is well known, in many gardens large quantities of manure are placed on the beds in the late autumn at a season the roots are almost inactive. The roots are not always able to take the food supplied them, and without top growth it is useless to feed. I am aware it enriches the soil and renders it in better condition to support growth. On the other hand, it would do a great deal more good given as soon as cutting ceased, and in the case of old beds, large masses of manure destroy the roots instead of assisting them. If more food were given from April to the end of September much better results would be obtained. In the case of worn-out or impoverished beds, no matter how much food is given, it cannot give new life if there is no root action, but in the case of healthy plants, food given during the growing season, when the crowns are being formed, gives the help required and builds up better crowns. A heavy dressing of salt—say in the late autumn (November)—does more harm than good. The

plants certainly require a certain amount of salt, but not when at rest, as, given then, it acts the reverse of what is intended, souring the soil and keeping the roots at a lower temperature than the surrounding ground. I prefer giving salt from April to August, not later, and even then it should be well washed down to the roots.

Another point often lost sight of is the state of the soil. In heavy clay soils the use of salt requires more care and should not be applied earlier than May or later than August, and only in moderate quantities in showery weather. Many beds will have had little moisture since cutting ceased, and these are the beds which will feel the strain next season, especially in light soils resting on gravel. In many gardens the old system of raised beds is still in vogue, and in such seasons as we are passing through, with prolonged heat and drought, these beds are the first to suffer and the most difficult to keep moist.

Beds, or what should more properly be termed rows of plants on the flat, are much better off in such seasons, and where room is no object, 3 feet between the plants will give splendid results. With plants grown thus, irrigation can be carried out. This is, I consider, the best means of promoting a free, strong growth, and no better use can be made of liquid manures than for these plants. Where liquid manure cannot be given, such fertilisers as fish manure, guano, and salt may be given liberally and well washed in. Fish manure is one of the best fertilisers. The proportion in which this food may be used depends upon the state of the soil. I would advise using it twice a month, in preference to strong doses with long intervals between. It is a safe manure when ample moisture is given. Guano is likewise valuable, but though applied in the same way as fish manure, if of the best kind it need be used in smaller quantities. There are other foods, such as soot and other rich fertilisers, that can be used in case animal manures are not procurable. It may be urged that Asparagus is a deep-rooting plant, and not readily affected by drought. It certainly roots freely if well supported, but if neglected its roots soon decay. In the case of light soils, a mulch between the rows in such seasons as this is of great importance, especially with young plants. I have used strawy litter for this purpose, and it retains moisture. Young plants in a richly-made bed are not in need of liquid like older ones, but they require more frequent supplies of water. Much may be done to support new growths at this season, as if twisted about by winds they cease to form the shoots or crowns for next season, so that it is well to preserve growths till they change colour. Any protection most handy may be employed, such as stakes and twine, or bushes thrust into the soil. G.

POTATOES.

THE recent great heat greatly helped to cause the soil to dry and tops of Potatoes to flag. But the trouble has been most evident on shallow-worked soils, however strong may have been the growths up to a certain time. Potatoes soon show the effects of limited root area in the heat, while those on deep-worked soils by their vigorous freshness continue to pay tribute to the great value of deep working. A check in growth such as heat and shallow-worked soils commonly produce not only materially affects the swelling of the tubers, but, worse still, it tends to super-tuberation when rain does come. Potatoes also suffer materially from too close planting in the heat, as then the moisture in the soil is too rapidly exhausted. It is doubtful whether the practice of moulding up the plants—although it seems to be an indispensable practice—does not greatly conduce to quick exhaustion of moisture. The moulding up necessarily exposes to the sun and wind a greater area of surface of soil than would be the case were there no ridging and the soil freely surface-hoed through the summer, so long, at least, as the tops would permit, to keep a

loose mulch of soil, as that is found in all cases to be the best check on evaporation. Once Potatoes are moulded up, even if a heavy rain should smooth off and harden or close up the surface, after hoeing is not possible. While moulding up seems to be regarded as an essential practice, there is yet ample reason why, with late varieties at least, earthing and non-earthing in their effects on crop production and presence or absence of disease in the tubers should be well tested. Potato growers must now look out for the presence of the black spot or disease in the tops at any moment. The dewy vapour generated after great heat by thunder or rainstorms is a grave factor in the promotion of fungoid spore growth in the stems and leaves, and spraying with Bordeaux mixture should be at once resorted to.

A. D.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, W.C. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

Legal Points.—We are prepared to answer questions of law which have anything to do with the subject of gardening and forestry. The questions should be as clear and explicit as possible, so that there can be no doubt as to the point of the question. Answers will be found in a separate column headed "Legal Points."

DISEASED TOMATOES (Rema).—Your Tomatoes, sample fruits of which are sent, show what is commonly known as black spot in a very bad form. This disease, which is a fungoid one, is all too common, especially with fruits rather low down, where the air of the house is naturally most damp and there is little circulation. The disease originates in the flowers, and although we have seen it attributed to imperfect fertilisation, we must hold to the belief that such suggestion

is wide of the mark, and that it is due to excessive moisture and imperfect ventilation. Black spot is rarely seen on Tomatoes grown up close under the roof of a house where they get plenty of air. As a rule Tomato plants are too freely watered at the first. Really, as a dry climate plant, they should be watered sparingly until the border or pots have been filled with roots and the plants are in full bearing. You must gather and destroy every fruit that is diseased, keep the house dry, and admit all the air you can. Later fruits will no doubt be quite healthy.

SCALDED GRAPES (J. E. B.).—The very unripe bunch of Black Hamburg Grapes sent indicates a bad case of scald. This is what Mr. A. F. Barron, the great authority on Grapes, says on scalding in his book of the Vine: "It generally occurs when the berries are about half-grown. Sometimes but a few here and there are affected, but frequently the entire side of the bunch is damaged (in your case the entire bunch is), and we have seen cases of nearly the entire crop being lost, the berries being completely destroyed, as if scalded or parboiled." That is exactly the condition of yours. He goes on to say: "This is caused through late or imperfect ventilation on some bright sunny morning whilst the berries are saturated with moisture." Your injured bunches being at the top of the house, where the early sun-heat is greatest, suffered most. Evidently you should have allowed much more of top ventilation to be on during the night to allow condensed moisture to escape, and thus keep the berries drier. That matter must still be attended to.

SWEET PEA BUDS FALLING (G. G. Rind).—Unless Sweet Peas are treated carefully, especially after the first flush of flowers is over, the bottom leaves are very liable to turn yellow, and the second crop of flower-buds to fall off. An overdose of chemical manure, such as guano, will cause the leaves and buds to turn yellow. If the plants are allowed to suffer for want of water, or if the seed-pods are not removed as fast as they form, the same effect will follow. The best thing you can do is to make sure that the plants are not allowed to become dry at the roots (nor, of course, must the soil be saturated, or the same evil would result), and to cut off all seed-pods as soon as they form. If the seeds are allowed to develop and ripen a severe strain is put upon the plant's resources, and further flowering is effectually put a stop to.

FASCIATED DAHLIA (F. W.).—There is nothing at all remarkable in your twin-flowered Dahlia. It is a mere case of fasciation, or two flowers blended into one. We have often met with this blending in Dahlias and in many other flowers. It would be difficult to define the causes which lead to this fasciation, but cultivated plants are necessarily more subject to diverse variations in growth than are natural or wild-grown plants. Very likely in the formation of the flower-stems there is some sappy matter existent which occasionally causes two stems in the process of development to adhere or grow together. We have seen ordinary round stems of some plants flatten out 1 inch or more broad in cases of fasciation. When Foxgloves produce on the points of the flower-spikes very large cup-shaped flowers rather than those of ordinary long forms, it shows that several flowers have coagulated or become fasciated.

ABOUT A TENNIS COURT (S. M. W.).—A full-sized tennis court should be of the following size: 78 feet long by 36 feet wide, with at least 9 feet extra at each end for freedom of play. No extra space is absolutely necessary at the sides, although a few feet would be an advantage. A single court should be 78 feet long and 27 feet wide. The quantity of turf necessary to cover this space can easily be ascertained by measuring on the spot. If turf of good quality is available, it should be laid down about the middle of September, so that it may have a chance of striking roots into the soil and establishing itself before winter. A court laid down at this time and well looked after next spring and early summer in the way of mowing and rolling should be available for play next summer. If turf is not available, lawn seed could be sown at the time above stated, or at the end of March or beginning of April next year, at the rate of 4 bushels to the acre. This would form splendid turf in time, but would not be available for play next year. There should be at least 9 inches or 1 foot of well-cultivated soil for the turf to rest on, or the lawn would dry up and burn in hot weather. Should the soil be poor, a liberal addition of well-rotted manure should be dug in. The ground after digging should be made firm and perfectly level before the turf is laid or the seeds sown. As regards drainage, this must be effectively secured, or the lawn will prove a failure. You do not give the conformation of your ground, which you say rests on rock. Usually land resting on this basis is naturally well drained. If not in your case, grooves must



A COLLECTION OF BRITISH AND EXOTIC ORCHIDS SHOWN BY JEREMIAH COLMAN, ESQ., GATTON PARK, REIGATE (GARDENER, MR. W. P. BOUND), AT THE ROYAL HORTICULTURAL SOCIETY'S CHELSEA SHOW IN JULY. THE BRITISH ORCHIDS WERE A CHARMING FEATURE OF THE GROUP.

be formed on the surface of the rock to carry away water to the lowest side. Pipes could not very well be laid in such a position, and these grooves would answer the purpose just as well, especially if filled with loose stones to prevent clogging by soil filling them up. As regards the best subject to plant to form a hedge, a good rule to go by is to plant whatever succeeds best in the neighbourhood you live, whether Quick (Thorn), Privet (golden or green), Yew, Holly, or Beech. For the hedge to be effective against rabbits a double row should be planted close together, angling the plants thus * * * not planting one opposite the other. In order for the fence to have a permanent, dense, and thick bottom it should be cut down low the first year after planting, so that a good crop of young branches may issue from the stem quite close to the ground. Rabbit-proof wire-netting should be fixed round the lawn until the hedge has grown sufficiently high and dense enough to be rabbit-proof in itself.

A PLAGUE OF EARWIGS (J. E. H.).—The placing of small pots on stakes used to support Dahlias and other plants supported in that way, and which are infested by earwigs, as traps to catch the insects is very good practice, so far as those particular plants are concerned, but has little value so far as a garden generally is concerned. Each pot should contain a small quantity of moss in which the earwigs may hide in the daytime. Generally the best ordinary traps are the placing of ordinary tiles here and there in pairs one on the other and lifting both and holding them over a tub of water into which the insects may fall. Pairs of slates kept apart the thickness of a pennypiece by thin strips of wood are similarly useful. Very good traps are also made by laying about freely hollow pieces of Broad Bean, Sunflower, Jerusalem Artichoke, Elder, or Bamboo stems some 10 inches long, and each morning collecting them or holding them endwise over a pail of water and forcing into it any insects that may have hidden in these traps.

ESCHSCHOLTZIA AND VIOLET (Mrs. C.).—In each we should regard the failure as due to some fungoid attack, but in the somewhat shrivelled condition in which the examples reached us we were unable to decide. In the case of the first named the attack is usually near the soil, and the best preventive we know is a mixture of lime and sulphur in nearly equal parts, the lime preponderating, dusting the mixture into the plant in the evening. There is no sign of red spider or its attacks on the Violet leaves sent, and the large, semi-transparent spots may be due to sun scorching or an attack of some fungus. For the present, mix a little common sulphur to a paste-like consistency, then add more water and stir well before syringing the plants, giving them a thorough wetting. If you have many plants affected, employ a large breakfast cup full of sulphur, and having made this into a thick paste, add water to the extent of 2½ gallons or 3 gallons. Soft water is best, and soft soap, first dissolved in boiling water, may be added with advantage. Both groups may be syringed with the solution.

GRAPES SHANKING (Grape).—You might possibly do good by removing some of the worst bunches now. This would certainly help the others to develop and allow them to ripen better. Give the vines manure water occasionally, it will help them to bear the heavy strain which a large crop places upon them. In the autumn you should turn your attention to the border, for the shanking is undoubtedly due to bad root action. Remove a good deal of the old soil by forking it away from the roots into a trench dug some 6 feet or 7 feet from the stem. Carefully preserve all the fibrous roots you come across, and cut back any thick gross ones, or any that have gone down into the subsoil. You will probably find some of the latter, for shanking often results from the roots having got into the subsoil. Replace the old soil with new, and lay the roots carefully in layers nearer the surface. Make the

soil firm as the work proceeds. The soil should consist of turfy loam, with which some old mortar rubble and half-inch bones are mixed. It may be necessary to put fresh drainage in the bottom of the border. If the drainage is not efficient it is most important that it should be made so.

MIGNONETTE DYING (G. P.).—The Mignonette plants enclosed appear to be simply starved to death; in fact, we never saw worse samples. They seem to have been grown in very poor light soil, whereas the Mignonette needs a soil of at least moderate consistency. There may be other local matters to account for your want of success, but the only verdict we can return is died of starvation. Were not the plants too far gone before they were watered?

HEATING SMALL GREENHOUSE (W. R. H.).—For the heating of a small greenhouse we can thoroughly recommend the Loughborough Boiler, of which full particulars will be found in the advertising pages of THE GARDEN. It is easily fixed, very economical of fuel, and does not require much attention. There are also many forms of hygienic heaters in which either oil or gas is employed to heat the water, and if carefully attended to there is scarcely any smell. Several firms make a speciality of these, which to the amateur are very useful. They are made in many different sizes. These last do not necessitate any interference with the structure, and the trouble of stoking is also avoided.

SCALDED TOMATOES (W. F. F.).—We attribute the peculiar colouring seen on your Tomato fruits, samples of which you send, to scalding through exposure to hot sunshine whilst the fruits were moist with condensed vapour. It is by no means improbable that watering, or in any case damping, the house has been done too liberally, with the result that, the house being close shut at night, a good deal of moisture was generated, and had not dried away before the hot rays of the sun were centred on the fruits and burnt or scalded them. It so commonly happens that Tomato houses are kept closed in the morning until the sun has greatly heated them, then air is freely given. To save the fruits from scald during hot weather ventilation should be given some two or three hours earlier. Having regard to the great heat which recently prevailed, it is no matter for surprise if fruits in other houses should have been burnt or scorched as yours have been.

BEGONIAS DISEASED (Salopian).—Your Begonias are attacked by some small worms nearly allied to the common earthworms, but they belong to a different family, the Enchytraeidae. They have no English name. These little worms are about half an inch in length, and in form resemble miniature earthworms, but they are quite white. They may be killed by soaking the soil with lime water (water in which freshly-burnt lime has been dissolved until it will contain no more). I should burn any infested plants and the soil they were growing in, and be very careful that the pots are properly cleaned before they are used again. You should also take care that none of the infested soil gets on to the potting bench, or other plants may be contaminated. These worms are as far as I know by no means particular as to what plants they attack. I never saw them in such numbers before as they were in the roots and soil you sent.—G. S. S.

MOVING PLANTS FROM ONE GARDEN TO ANOTHER IN AUGUST (Journalist).—We should advise you to defer shifting any of your plants until the end of September or beginning of October. The sun has such power now that they would be burnt up before they could take root in the new soil, especially as they have been lifted from clay soil. This same remark applies to the Strawberries. With regard to the Carnations, we should be inclined to layer them at once, and if the work is well done they will form good roots without any further attention. This will be much better than lifting the plants later on, as

old Carnation plants do not move well. We would not advise you to invest in any plants now with the view of affording a show during August and September. Whatever you bought would have to be in pots, and these, as a rule, are expensive. It sometimes happens that nurserymen have a stock of budding plants in pots left on their hands, and are glad to get a market for them at any price, and such may be the case near your new home. Such plants as Geraniums, Begonias, Marguerites (white and yellow), autumn blooming Chrysanthemums, Lobelias, and Heliotropes, these and others if planted thickly would make a pleasing show at once, and continue to do so till late in the autumn. Most of the following plants, if sown at once on a warm border, would flower next spring or summer: Aquilegias, white Arabis, Aubrietias, Larkspurs, Candytuft, Carnations and Picotees, Clarkia, Sweet Alyssum, Antirrhinums, Auriculas, Campanulas in variety, Canterbury Bells, Digitalis (Foxglove), Gaillardias, Hibiscus, Honesty, Mimulus, Pinks, Violas, Delphiniums, Fraxinella (Burning Bush), Pansies, Love-in-a-Mist, Musk, Iceland Poppies and others, Saponaria calabrica, Godetias, Daisies, Lupins, Forget-me-nots, and Linum pendula and compacta.

PROTECTING MARIPOSA TULIPS (Chid).—A description of the soil in which the Mariposa Tulips are growing would have helped us to answer your question as to whether they may be left in the ground and trusted to reappear next year. If the soil is gritty and well drained, they may remain undisturbed, giving them a covering of ashes 2 inches thick should frosts threaten when the ground is wet. If the soil is heavy and inclined to hold moisture, take the bulbs up in a few weeks time, stratify them in dry sand in a pot, and plant again in November. Now that the soil is dry you could easily keep it so by placing a hand-light, a few slates, or any convenient covering that may be at hand over the site till they start to grow again. Generally, it is better to leave them than to lift them for storage, providing you can ensure them resting quietly.

POTATO FOR NAME (Nulley).—We regret it is not possible to give an exact name to your Potato, sample of which is to hand. The tubers lack individuality, and resemble those, at their present stage of growth, of a score of other first or second early varieties. The local name by which it is known, Ferretters, gives no clue whatever to the real name. Roughly, as seen at present, the tubers resemble those of White Beauty of Hebron, Puritan, Ninety-fold, or Sir John Llewelyn as of others. You may, if you will, send tubers next winter to S. T. Wright, Royal Horticultural Society's Gardens, Wisley, Surrey, where with other varieties they could be grown, and, no doubt, identified, especially if you state that you want the name, and that the variety is fairly early. In the growing stage varieties of Potatoes can often be more correctly determined by their tops than by their tubers.

SELECTION OF ROSES (J. C.).—We are glad to receive your appreciative note. You appear to have a good collection of Roses, and we cannot well improve on the proposed additions excepting in one or two cases. Dupuy Jamain is good, so also is Fisher Holmes, but we think you would find Duke of Wellington more serviceable. General Jacqueminot is grand, only you should procure its own roots, not budded. Reynolds Hole is very uncertain, and not worth growing. Charles Lefebvre is far more reliable. Mildred Grant is an exhibitor's Rose, magnificent in yearling plants, but rarely good for the second season. Pharisae or Prince de Bulgarie or Mme. Ed. Metz would be much superior. Frau Karl Druschki cannot be excelled, and the same may be said of Mrs. John Laing. Prince Camille de Rohan is rarely seen so good now as it is used to be. We prefer Abel Carrière or Jubilee, both these being splendid blackish Roses. Gustave Regis is most lovely, and Clio and Duke of

Edinburgh indispensable, making fine large heads, but you must di-bud Clio rather heavily. For climbers W. A. Richardson is first rate, growing best on a west wall. L'Ideal is charming, but somewhat tender. We would suggest Dr. Rouges instead. Additional varieties to make a dozen bushes from your suburban garden would be: Alfred Colomb, Mrs. Sharman Crawford, Mme. Hôte, Louis Van Houtte, Mme. Lambard, and Mme. Antonie Mari. Perhaps the most serviceable golden Rose is Mme. Ravary. Its buds are a rich deep yellow, but the open flowers somewhat pale. We are still looking for a good hardy yellow. Josephine Bernacchi, Mme. Charles Monnier, and Le Progres are excellent, and worth growing as yellow Roses.

THE VALUE OF KOHL RABI (D. M. R., Bournemouth).—The green leaves of Kohl Rabi can be cooked, but they do not compare with Turnips in a young state, being of a coarse and drier nature. We do not advise their use as a vegetable, as the others named are preferable.

NAMES OF PLANTS.—Miss Marshall.—1. *Spirea canescens*; 2. *Crataegus Pyracantha* (the Fire Thorn)—A. C.—*Nephrodium lepidum*, better known as *Lastrea lepidum*.—R. Plomer.—1. *Veronica longifolia*; 2. *Eupatorium ageratoides*; 3. *Colutea arborescens*.—Veld.—1. *Nepeta Mussini*; 2. *Lilium catharticum*; 3. *Mentha arvensis*; 4. *Eupatorium cannabinum*; 5. *Nasurtium palustre*; 6. *Chenopodium album* var. *viride*.—Rhagatt.—*Campanula lactiflora*.—W. A. W.—The shrub is *Cornus sanguinea*, and the Pink, *Dianthus deltoides*.—Kippen.—*Centaurea macrocephala*.—A. D.—1. *Origanum hybridum*; 2. *Santolina Chamaecyparissus*; 3. *Gasteria verucosa*; 4. *Helix Soleroli*; 5. *Ruellia Portellæ*.—W. Riddell.—As far as one can say without flowers, the specimen is *Hypericum hookerianum*, also known as *H. oblongifolium*.—T. W. S.—The yellow Rose we believe to be François Foucard, one of the hybrid wichuraiana; and the white one we cannot identify. Could you send us a longer piece of the growth, and say whether it is a climber or dwarf?—E. S.—The Old Clove Carnation. It is probably dying out, as there are so many fine border varieties now which do not burst, as the Old Clove does. We have, however, a lingering love for this fine Carnation.—Tibbie.—*Thunbergia alata*.—A. J. I. C.—A single flower of a Clematis which is either white or whitish, for it is much faded. Without even a leaf or any description we cannot name it.

SHORT REPLIES.—Reader.—We should recommend you to get a small book, published by Macmillan and Co., entitled "The Chemistry of the Garden," by H. H. Cousins. The price, we think, is 1s. It contains a large amount of useful information on the composition and value of various manures and soils, and chapters on fungicides and insecticides.

LEGAL POINTS.

TRESPASS BY FOWLS.—Referring to a reply which we published in THE GARDEN on the 12th inst., a correspondent writes to say that he has found a small pugnacious terrier a cheap and efficacious remedy. After two or three of the offending fowls had been killed, the owner was very careful to prevent the remainder from trespassing. We are much obliged for this able suggestion. It would be well for the sufferer to fix a placard on his fence with the inscription: "Notice to fowl owners. Beware. There is a dog in this garden who is very fond of fowls. By order."

INSPECTION OF TITLE DEEDS, TRANSFER, AND MORTGAGE (B. W., Sussex).—A mortgagor is entitled to inspect the title deeds in the mortgagee's possession and to make copies and extracts therefrom, but he must pay the mortgagee's costs. A mortgagee must, if required, upon payment of the amount secured, transfer the mortgage to any person nominated by the mortgagor. In the absence of a special stipulation a mortgagee is entitled to six months' interest in lieu of notice, but in most cases mortgagees will accept the difference between the amount of bank interest at the current rate and the amount of the interest payable under the mortgage for the six months. Property may be bought and sold subject to a mortgage, but where a person purchases property subject to a mortgage, he makes himself, in the absence of a stipulation to the contrary, liable to indemnify the mortgagor against the payment of the amount secured.

SOCIETIES.

MIDLAND CARNATION AND PICOTEE SOCIETY, BIRMINGHAM.

THE fifteenth annual exhibition of this society was held at the Edgaston Botanical Gardens on Wednesday and Thursday, the 2nd and 3rd inst. This was one of the finest exhibitions of Carnations ever held, it being unanimously acknowledged that the blooms were some of the best that had ever been staged. The competition, especially in the twelves, was exceeding keen, the judges having the greatest difficulty in separating the first two stands. One of the features of the show was the large support extended to the undressed bloom classes, the difference in these being very marked over the flowers staged a few years ago.

One of the leading features of the exhibition was a new light red edged white ground Picotee, Miss Evelyn Cartwright, which was unanimously declared to be the finest bloom in the exhibition, and without doubt the best white ground Picotee ever raised; it was awarded first and second in its class and premier bloom, also first-class certificate. Cassandra, a purple self, was also awarded a first-class certificate. Both of these varieties were raised by Mr. R. C. Cartwright of King's Norton.

In the class for twelve selfs Mr. W. H. Parton was first with excellent blooms, Mr. R. C. Cartwright was second (only losing in point of colouring), and Mr. C. F. Thurstan third.

Six selfs: First, Mr. A. W. Jones; second, Mr. G. F. Spittle; third, the Rev. C. A. Gottwaltz.

Twelve yellow ground Picotees: First, Mr. A. W. Jones; second, Mr. W. H. Parton; third, Mr. R. C. Cartwright. It was generally acknowledged that on these three stands were some of the finest yellow ground Picotees that have ever been exhibited.

Six yellow ground Picotees: First, Mr. F. W. Goodfellow; second, Messrs. Pemberton and Son; third, the Rev. C. A. Gottwaltz.

Twelve fancies: First, Mr. R. C. Cartwright, with magnificent blooms; second, Mr. W. H. Parton, with flowers only slightly inferior; third, Mr. C. F. Thurstan, losing in brilliancy of colour.

Six fancies: First, Mr. G. F. Spittle, with clean bright blooms; second, Messrs. W. Pemberton; third, Mr. F. W. Goodfellow.

Twelve white ground Picotees: This class again brought forth very keen competition, the first three stands being almost equal in point of merit. First, Mr. W. H. Parton; second, Mr. R. C. Cartwright; third, Mr. C. F. Thurstan.

Six white ground Picotees: First, Mr. F. W. Goodfellow; second, the Rev. C. A. Gottwaltz; third, Mr. C. J. White.

Twelve bizarres and flakes. Here again competition was exceedingly keen. First, Mr. W. H. Parton, with beautiful blooms, especially Master Fred and Gordon Lewis; second, Mr. R. C. Cartwright, losing to the winner by deficiency of bizarres; third, Mr. C. H. Herbert.

Six bizarres or flakes: First, Mr. E. C. Rossiter; second, Mr. C. Chatwin.

The principal winners in the single bloom classes were Messrs. W. H. Parton, R. C. Cartwright, A. R. Brown, and the Rev. C. A. Gottwaltz.

The flowers shown without cards made a magnificent display. For twelve selfs Mr. R. C. Cartwright was first, Mr. W. H. Parton second, and Mr. C. F. Thurstan third.

Six selfs: First, the Rev. C. A. Gottwaltz; second, Mr. A. W. Jones; third, Mr. H. Skeels.

Twelve fancies: First, Mr. R. C. Cartwright; second, Mr. A. W. Jones; third, Mr. W. H. Parton.

Six fancies: First, Mr. C. Chatwin; second, Mr. W. H. Twist; third, the Rev. C. A. Gottwaltz.

Twelve distinct varieties of selfs, yellows, or fancies, shown in threes. This class was one of the finest in the exhibition, and after a considerable amount of trouble the judges decided to award equal firsts to Messrs. R. C. Cartwright and W. H. Parton; third, Mr. C. H. Herbert.

In the class for three flowers of one colour, shown in vases, the principal winners were Messrs. R. C. Cartwright, W. H. Parton, and W. H. Twist.

The amateur classes for those not growing more than 300 plants, and not employing a gardener regularly, were a distinct improvement on previous years, the principal prize winners being Messrs. J. D. Williams, E. J. Price, J. Farmer, and J. W. Mitchell.

The premier prizes were awarded as follows: Bizarre, Master Fred; flake, Gordon Lewis; heavy edged white ground Picotee, Mrs. Openshaw; self, W. H. Parton (these flowers were all exhibited by Mr. W. H. Parton); light edged white ground Picotee, Miss Evelyn Cartwright; fancy, Mr. Ivo Sebright (both exhibited by Mr. R. C. Cartwright); heavy edged yellow ground Picotee, Peri (shown by Mr. A. W. Jones); light edged yellow ground Picotee, Mrs. Walter Heriot (shown by Mr. C. F. Thurstan).

The medals awarded by the Birmingham Botanical and Horticultural Society were awarded to Messrs. W. H. Parton, R. C. Cartwright, and the Rev. C. A. Gottwaltz.

In the class for bouquets of Carnations Messrs. Felton and Sons, Hanover Square, London, gained the first prize with a beautiful arrangement of two shades of soft blush, as Enchantress and Fair Maid. Three other examples were shown, to which second, third, and fourth prizes were awarded.

Sprays of Carnations were numerous, and Mrs. W. H. Parton succeeded in gaining first prize for prettily-arranged flowers of yellow Carnation.

In the class for three buttonholes of Carnation flowers Mr. W. L. Deedman succeeded in securing first prize.

SWEET PEAS.

These were hardly so numerous as in former years, but were very distinct, bright, and the colours well chosen,

no striped varieties being seen anywhere, all selfs or shaded flowers of the purest shades. Prizes offered by Mr. Robert Sydenham.

Floral arrangements of Sweet Peas in the Sydenham Rustic Table Stands: First, Mr. Jones, Ruabon, fine flowers, clear, soft colours, and well arranged.

Twelve distinct varieties of Sweet Peas, in bunches not less than forty or more than fifty stems in each, in separate vases, with any foliage, Grasses, &c.: First, Mr. Jones, Ruabon, with a beautifully arranged lot in clear, bright colours and fine flowers; second, Mr. A. G. Holford, Off-y Hay, Eccleshall, with good flowers and good colours; third, Mr. E. Deakins, Hay Mille, Birmingham.

Mr. Sydenham showed an excellent collection (not for competition).

HONORARY EXHIBITS.

The exhibition hall and corridor lend themselves admirably to varied collections of plants and cut flowers, and the society recognises the efforts of good exhibitors by awarding medals according to merit.

Messrs. Hewitt and Co., The Nurseries, Solihull, occupied the front of the orchestra with a magnificent exhibit of choice hardy flowers interspersed with good bunches of the new American varieties of Tree Carnations, &c., including their new Chrysanthemum maximum Queen Alexandra, a beautifully arranged group of bright material. Silver-gilt medal.

Messrs. Gunn and Sons of Olton put up a splendid group of hardy cut flowers, including many grand bunches of the finer varieties of Phloxes, of which they make a speciality. Deservedly awarded a silver-gilt medal.

Messrs. Bakers of Wolverhampton, in their usual enterprising way, had an equally fine arrangement of Roses in bunches, also specimen blooms in boxes, with a further arrangement of border Carnations in many varieties, the whole forming an interesting and very attractive well-arranged exhibit. Silver-gilt medal.

Mr. Amos Perry, Winchmore Hill, London, showed many varieties of new Nymphs, prettily arranged with foliage, in shallow pans, backed up with various kinds of Lilies, forming a very interesting exhibit, with some new Montbretias. Silver medal.

Messrs. B. R. Davis and Sons of Yeovil showed a very interesting collection of cut blooms of double B-gonias, effectively displayed in small vases, arranged with cut sprays of variegated foliage, many grand flowers of the best types being represented. Silver medal.

Mr. A. F. Dutton of Iver, Bucks, put up a fine lot of Tree Carnations, very effectively displayed in tall vases, some of the best being Enchantress, Fair Maid, Harry Crane, Mrs. T. W. Lawson, Lilian Pond, &c. Silver medal.

Mr. W. Sydenham of Tamworth had a very nice exhibit of cut herbaceous flowers and Violets, the latter being one of his specialities, and contained many lovely varieties. Silver medal.

Mr. Vincent Slade, Staplegrave Nurseries, Taunton, had a large and very effective exhibit. The double and single cut zonal and Ivy-leaved Geraniums in many fine varieties were much admired. Silver medal.

Messrs. White of Worcester showed an interesting collection of hardy and other flowers, but, being shown on two sides of a sloping stand, could not be made as effective as they might otherwise have been. Silver medal.

Mr. S. Mortimer of Farnham, Surrey, showed a large collection of Cactus Dahlias and a few show varieties. These proved very interesting and were much admired, many good varieties being represented. Silver medal.

Messrs. Bick Brothers of Olton had a large and interesting collection of Sedums, Saxifrages, and other rock plants in pans, of which they make a speciality, supported and backed up by various cut specimens of showy herbaceous flowers. They were awarded a large silver medal.

Votes of thanks were given to Messrs. Jones and Sons, Shrewsbury, for an exhibit of Sweet Peas and Carnations; Mr. Robert Sydenham, for a collection of Sweet Peas; and to Mr. Owen, Birmingham, for postal boxes suitable for sending Carnation layers by post—they were strong and convenient. An award of merit was given to Messrs. Felton and Sons, Hanover Square, London, for an effective arrangement of very choice hybrid Gladioli and double Gypsophila. It was an excellent show, well managed and splendidly arranged by the obliging curator, Mr. T. Humphreys.

EAST ANGLIAN HORTICULTURAL CLUB.

THE monthly meeting was held on Wednesday, the 9th inst., at the Shirehall Hotel, Norwich. Mr. J. Powley presided, supported by Messrs. T. B. Field, G. Davison, H. Batchelor, R. Watson, J. E. Barnes, and many other prominent local horticulturists. After having passed a unanimous resolution thanking Major Petre for allowing the club to have its outing at Westwick House Gardens, and Mr. Walter Rye for his hospitality, the president read an essay, written by Mr. J. R. Mace, gardener, Thorpe, upon "How to Make and Keep a Lawn." The writer had well grasped the subject, and the practical points from start to finish were very noticeable. The subject brought out a good discussion.

The exhibition tables presented quite a comprehensive display. Undoubtedly the most attractive were the new Montbretias staged by Mr. George Davison, Westwick House Gardens, and which included blooms of his new monster named Promethus, which recently gained such prominence at a meeting of the Royal Horticultural Society. The floral committee of the East Anglian Club were unanimous in giving it a first-class certificate and an award of merit to one of its parents named Ernest Davison. Besides these Mr. Davison brought other rare treasures from his hardy borders. Mr. C. H. Fox, gardener to Sir E. B. Mansel, Bart., Old Catton, described the way to grow *Streptocarpus* hybrids well, his spikes having up to

ten flowers on them. Hobbies, Limited, Dereham, made a display of new Cactus Dahlias and some blooms of Dean Hole, a new Rose. Mr. J. F. Betts, Park Lane, Norwich, an amateur Carnation enthusiast, offered good prizes for the best eighteen blooms of border Carnations. Here Mr. C. Matthews, gardener to L. Willett, Esq., Thorpe Hamlet, was first. Hobbies, Limited, Dereham, offered prizes for the best three Cauliflowers Green's Earliest of All, a capital variety even in a dry season. For these Mr. F. Carrington, a local amateur vegetable prize-grower, took first. Messrs. Benton and Stone, Limited, Birmingham, had kindly presented one of their noted syringes for the best brace of Cucumbers. Out of seven entries Mr. W. Laws, Eaton, secured it. In the monthly classes some good exhibits were to be seen, and special mention should be made of the Peaches from Mr. F. Williams, gardener to Louis J. Tillett, Esq., M.P., Old Catton, and the strong competitions for French Beans.

READING GARDENERS' ASSOCIATION.

VISIT TO BLENHEIM.

DURING the past month two very pleasant meetings have been held. The first was an evening gathering, when about 100 members, by the kind permission of Mr. and Mrs. Friedlander, paid a visit to the gardens and grounds of Whiteknights Park. Mr. Bright, the head gardener, has been a warm supporter of the association from its commencement, and is known as a grower of exceptional ability; therefore it was no matter for surprise that so many members were present on this occasion. The houses were first inspected, the Peaches and Nectarines claiming most attention. The trees were grown in small boxes, and were carrying splendid crops of fruit of large size and of good colour, testifying to excellent culture. Such varieties as Lord Napier, Dymond, Stirling Castle, and Bellegarde were especially fine. The kitchen garden contained good crops of vegetables. A feature of the terrace gardens was four beds of Sweet Williams. These old-fashioned flowers were making a charming display, and were an object-lesson to many in massing for effect. In one house some splendid fruits of Melon Royal Jubilee were noted. The secretary conveyed to Mr. and Mrs. Friedlander, who met the party in the grounds, the thanks of the members present for their kindness in throwing open the gardens for inspection. Both Mr. and Mrs. Friedlander expressed themselves as being delighted to see the members present, and offered their well-wishes for the success of the association.

The second was the annual outing, which proved to be one of the most successful of the many held by the association. The weather was exceedingly fine, the number of members taking part in the outing was a record, and the party was accompanied by the president, Mr. Leonard Sutton. The members assembled at the Great Western Railway's Reading Station at 10.30 from Maidenhead, Henley, Mortimer, Caversham, Sulhamstead, Calcot, Wokingham, Bear Wood, Shiplake, Bucklebury, Mapledurham, Whitechurch, Beenham, Burghfield, Windsor, Burnham, Bill Hill, Newbury, Bradfield, Sonning, Twyford, Eversley, Sindlesham, Purley, Sandhurst, Woodley, Wellington College, Hawthorn Hill, Warfield, Shinfield, Wallingford, Wokefield, Culham, Shillingford, &c. Three saloons were attached to the 10.35 train to convey the party to Blenheim, His Grace the Duke of Marlborough having kindly given permission for the Palace Gardens to be thrown open for inspection. Immediately on arrival the party, 116 in all, by the kind invitation of the president, sat down to luncheon at the Marlborough Arms Hotel. Afterwards the party, under the guidance of Mr. Garrett (His Grace's head gardener), proceeded to the Palace, where special facilities had been granted for the members to look through the State apartments. Needless to say, the wonderful tapestry and pictures, considered to be the finest of their kind in the country, attracted much attention. The gardens and ornamental grounds were next visited. The Italian Garden certainly attracted the most attention. This was looking exceedingly gay. The walk by the lake through the American Garden and through the shady glades leading to the kitchen garden and glass houses was much enjoyed. The crops of vegetables and fruit were in excellent condition, while the Carnations were the feature of the flowers under glass. The party arrived back at eight o'clock, one and all having spent a most enjoyable day, thanks to the hospitality of the president and the arrangements made by Mr. Garrett.

NEWBURY HORTICULTURAL SOCIETY.

THE fifty-seventh annual exhibition of the above society was held on the 7th inst. in the grounds of Goldwell Park, an ideal place for a flower show. In spite of the changeable weather on Bank Holiday, the show was well patronised. Newbury and its Mayor and Corporation are proud of their horticultural society, the Mayor being president each year, and few shows are more interesting. Here may be seen excellent flowers, fruit, and vegetables, and hardy flowers are a special feature.

The open classes were good, but there were none too many large specimens, and this is by no means uncommon. Here, however, there are recent additions which make up, the class for conservatory arrangement being very good.

The premier award in this class was taken by the veteran and excellent gardener, Mr. Charles Ross, Welford Park Gardens, who had a splendid lot of plants admirably arranged. Mr. J. Howard, Bonham Park, was a close second.

The best stove and greenhouse plants in blooms were shown by Mr. C. Surman, gardener to Mr. M. H. Best, Donnington Grove, Mr. Ross being second with smaller plants. In the class for the best foliage plants the awards

were reversed, Mr. Ross being first and Mr. Howard second. Mr. J. Howard had the best ten exotic Ferns, Mr. F. Lock, gardener to Mr. G. T. Plevins, Tile Barn, being second. Some splendid specimen Fuchsias were exhibited, and Mr. T. Surman was an easy first, having grand specimens. Mr. J. Prew, gardener to Mr. A. Camp, was second.

Mr. C. Ross had the best specimen foliage plant; second, Mr. Howard.

Mr. J. Johnson had the best specimen flowering plant with a fine Lilium speciosum in bloom, Mr. Surman being second with a grand plant of Campanula alba.

Other foliage plants were good, Messrs. Surman and Johnson taking awards. Lady Sutton had beautiful cut Roses, being second to Messrs. G. Cooling and Son, Bath, they taking the premier award in the open class with excellent blooms when the season is considered. Messrs. Mead and R. Cox had the best Roses in the smaller class.

Decorative plants were a feature here. Messrs. Howard, Lock, and Ross were the leading exhibitors in the order named.

Cut flowers were numerous and well staged, the only fault in this class being that the herbaceous blooms are much too packed—quality is lost at the expense of quantity. Miss B. Frost was first for bridal bouquets, J. F. Merchant, Bath, second. There was a good array of Carnations, and Messrs. Filewood, Cox, and Tranter were most successful in the order named, and Mr. R. Tranter, Henley, had splendid show Dahlias.

Table decorations were a feature, and above the average, though in some of the exhibits there was too much drapery. Mrs. Charles Stradling was first with a bright arrangement of Sweet Peas, pink and mauve; Mrs. C. Attewell, second, with Carnations; and the Misses Frost and Willoughby equal third. A table of Orchids was so good that it was evidently discarded for a delicate arrangement of white Sweet Peas.

Fruit was good, though less plentiful than we have seen previously. Mr. J. Howard had the best collection and the best Pine-apple. Mr. T. Surman had excellent Black Hamburg Grapes, Messrs. Cox and Lees being second and third; for Muscats Mr. J. Howard was first; Messrs. Lock and Surman for other varieties.

Mr. Lees had the best Melon; Messrs. Cox, Newman, and Ross Peaches; Messrs. Howard and Lees Nectarines. Hardy fruit is not plentiful evidently in the Newbury district. There is none too much this season. Messrs. Surman, F. Lock, and Cox had the best Gage Plums; Mr. Howard good Apricots; and Messrs. C. Ross, Surman, and D. Bosley the best dessert Apples.

For a collection of vegetables, twelve varieties, Messrs. H. Keep, Aldermaston, and J. Howard and C. Surman were the winners, these being of great merit.

There was a smaller competition than usual for Messrs. Sutton's prizes for vegetables. Mr. Lock of Tile Barn was first, having splendid roots, Mr. Howard being a close second. In the smaller classes the same exhibitors received the awards. The cottagers' classes were very fine, and occupied much space; indeed, these were most numerous, and proved one of the features of the show. Amateurs were strongest in the plant and flower classes. There were some pretty floral decorations from Messrs. Whittingham of Newbury and from Miss B. Frost. The Hannington Champion Shield, the leading trophy at this show, was keenly contested, and is awarded at the close of the show to the exhibitor who takes the most prizes.

The committee deserve much praise for their splendid arrangements and their great interest in this old and useful society.

NORTH MENEAGE.

A SHOW which can well claim to be among the best held in the county is that organised by the North Meneage Horticultural Society. Started nine years ago, mainly through the efforts of Mr. P. D. Williams, the society has flourished exceedingly, and a keenness and love for horticulture nothing short of marvellous have been stirred in the district. At the first of the society's shows the gentry of the neighbourhood participated in the competitions, but they have recently dropped out, the desire to encourage the inhabitants generally to compete having been achieved. Much of the interest in horticulture in the district is traceable to commendable efforts on the part of the schoolmasters in the district to create a love for gardening in the school children. In one class alone nearly forty children participated. The idea is encouraged by Mr. Williams, who supplies schoolboys with seeds, and they have a class all to themselves. This year's exhibition was held at Lanarth, the residence of Mr. Williams, and the entries constituted a record, numbering close on 1,000, which is really remarkable when the area covered by the society is considered. It was a compliment to the society to secure as judges two of the leading seedsmen in the country, Mr. Sydenham of Birmingham and Mr. Toogood of Southampton, who were joined by Mr. A. King of Trevanno. They were highly pleased with the quality of the flowers and vegetables brought under their notice. The vegetables were a very fine lot indeed, while some good plants were shown. Among the cut flowers Sweet Peas were very prominent. In the opinion of Mr. Sydenham many of the exhibits were as good as anything he had seen at large shows up the country. It would certainly add to the attractiveness of the exhibition if the prominent residents of the neighbourhood could see their way to exhibit groups of plants and the like not for competition. Mr. Sydenham exhibited some beautiful Carnations, which were much admired.

The arrangements for the show were of a most complete nature, and reflected the greatest credit on the chairman of the committee, Dr. Leverton Spry, and the hon. secretaries, Messrs. R. M. Clayton and W. H. Bonfield.

The local secretaries were Mr. W. J. Tripp, St. Keverne; Dr. Daunt, Coverack; Mr. T. Crawford, Manacann and St. Anthony; Mr. W. T. Cooke, St. Mawgan; and the Rev. A. L. T. Mugford, St. Martin.

The society is in a very flourishing condition, and a slight falling off in attendance last year on account of the bad weather was more than compensated for this year, when a very large number of people were present. The Illogan band, conducted by the Rev. H. Oxland, played on the lawn during the afternoon and evening.

The prize list was composed of two sections, namely, A, open to all but those employing a professional gardener or obtaining their livelihood by gardening, and B, of all who, not being professional gardeners, whose house and garden did not exceed £5.—*Western Daily Mercury.*

PRESCOT.

THIS successful society held its annual show on the 7th inst. in Knowsley Park, by the kind permission of the Right Hon. the Earl of Derby, K.G. The entries, although not a record, numbered 663, but, what is of greater importance, a distinct improvement was noticeable in the plant section, which stamps it as the finest summer exhibition in the district of Liverpool. The schedule comprises 102 classes, only a few of which can be noted, these being selected for their excellence.

For a collection of plants staged for effect, a circle 11 feet in diameter, Mr. John McGeorge, gardener to Thomas Henshaw, Esq., won with an artistic arrangement, in which highly-coloured Crotons and Caladiums showed to great advantage. Mr. H. McFall, gardener to Mrs. Harding, was a good second.

For six stove or greenhouse plants, not less than three in flower, Mr. J. McGeorge had good plants of Clerodendron, Stephanotis, Allamanda, &c.

For three Orchids Mr. D. Little, gardener to G. H. Pilkington, Esq., was first with fair plants.

For four stove and greenhouse Ferns Mr. J. McFall was first with fresh plants. Mr. H. Guy, gardener to Dr. Gaskell; Mr. T. Dagnall, gardener to C. F. Boston, Esq.; Mr. W. Orrett, gardener to H. Gamble, Esq.; Mr. E. Bridge, gardener to Mrs. Jowitt; Mr. John Rose; and Mr. P. Greene, gardener to Colonel Gee, were the chief prizewinners in other classes.

Mr. J. McGeorge had the best Sweet Peas.

For four dishes of fruit Mr. W. Oldham, gardener to J. Beecham, Esq., scored with Madresfield Court Grape, Sutton's Best of All Melon, Pineapple Nectarine, and Barrington Peach. Mr. E. Forbes, gardener to Mrs. Baxtor; Mr. W. Oldham, Mr. Dagnall, Mr. J. Rose, and Mr. Thomas Eaton, gardener to Mrs. Farrington, were the other leading prize-takers.

For eight varieties of vegetables Mr. H. McFall staged a fine lot, including Early Autumn Cauliflower, Duke of York Potatoes, Alderman Peas, Ailsa Craig Onions, Sutton's Perfection Tomatoes, &c.

For twenty-five pods of Peas Mr. McFall was first.

The arrangements, as usual, were carried out smoothly by Mr. W. Case (secretary) and his committee, the show being patronised by a large crowd.

KIRKMICHAEL, DUMFRIES.

THIS society held its annual show on the 5th inst. in the beautiful grounds of Foxwood, kindly granted for the day by Mrs. Lyon. The show was equal to those of most former years, although the dry season had militated against the competition in several classes. In the open classes the competition was generally good, although in a few some additional competitors might have found it worth their while to compete. The principal prize taker in these classes was Mr. W. Maxwell, Foxwood, who had the greatest number of first prizes in the classes for vegetables, fruit, and plants in pots. Mr. I. Templeton, Conningsknowe, came next with almost the same number of first prizes, these being principally in the cut flower classes. The cottagers' classes were also well contested, and some excellent produce was shown.

BRECHIN.

THE annual two days' show of this society was held on the 4th and 5th inst., and was opened by the Countess of Dalhousie, who performed her pleasing duty in a graceful manner. The entries were very satisfactory in number, there being nearly 800, and it was universally agreed that the quality of these was much better than in any previous year. In every department this was noticeable, and such exhibits as those of cut flowers, wreaths, bouquets, and decorations were the object of much admiration. The weather was unfavourable, which somewhat told upon the attendance later in the day of the opening. The prize list cannot be detailed, and a brief list of the leading winners would be invidious where there were so many prize takers.

NORTH OF FIFE.

THIS society held its annual show at Mountquhanie on the 5th inst., the opening ceremony being performed by Sheriff Gillespie, who in the course of his remarks referred to the distinguished gardeners who had made their mark at their shows, some of whom now filled high positions. The show, although hardly so fine as that of last year, was a very creditable one, and the beauty of the exhibition was heightened by a splendid centre table containing a number of non-competitive exhibits from several of the leading private gardens in the North of Fife. Among the leading winners were: Cut flowers, Mr. S. W. Johnston, Mr. D. N. Dingwall, and Mr. G. J. Leslie; pot plants, Mr. Johnston, Dr. Campbell, and Mr. Dingwall; vegetables, Mr. Johnston, Mr. Dingwall, and Mr. G. Todd; fruit, Mr. D. Hay and Mr. W. Rollo.



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ROYAL HORTICULTURAL SOCIETY.

THOUGH visitors were very few at the last meeting of the Royal Horticultural Society, there were several fine groups. The *Buddleia variabilis* var. *magnifica* from Messrs. Veitch and Sons, Limited, was well worth seeing alone. It is a beautiful introduction. There were splendid *Gladioli* from Messrs. Kelway and Son, Orchids from Major Holford, and interesting groups of hardy flowers, altogether a most interesting exhibition.

FLORAL COMMITTEE.

Present: Mr. W. Marshall (chairman), Messrs. C. T. Drury, H. B. May, George Nicholson, J. Green, William Cuthbertson, Charles Dixon, Charles Jefferies, Charles E. Pearson, J. T. Bennett-Pe, W. P. Thomson, E. H. Jenkins, W. J. James, James Walker, H. J. Cuthbert, J. Jennings, R. C. Notcutt, William Howe, Charles Bick, and E. T. Cook.

Messrs. Kelway and Sons, Langport, staged a very fine lot of *Gladioli*, in which the excellence of their cultivation was well portrayed. It is not too much to say, perhaps, that the firm has rarely set up a better grouping of these indispensable late summer flowers, and each year brings with it additions and improvements to a most valuable group of garden flowers. Upon this occasion the long concert platform was filled with a choice assortment, of which we take the following as among the best: Prince Henry of York, scarlet; Mrs. Lund, creamy flesh, yellow throat; Western Glory, heavy crimson; Leander, yellow, very fine form; Sir Evelyn Wood, maroon-crimson; Lady White, beautiful in spike and flower, and of alabaster whiteness; Empress Frederick, yellow, streaked scarlet; Black Meg, distinct; Cellinae, dark maroon-crimson; and Duchesse of York, flesh and white. Some 200 spikes were staged, and among them a number of seedlings of merit. A really choice grouping of choice flowers. Silver-gilt Flora medal.

Messrs. Veitch and Son, Limited, Chelsea, staged on the floor a formidable group of *Buddleia variabilis* and *Senecio clivorum*, the latter, we think, much improved when compared with the original plants first seen. The deeper orange tone and the great freedom of flowering appeals to one strongly, and without hesitation we regard this as one of the finest plants for bold waterside gardening. *Senecio ligularia polyccephalus*, with small yellow flowers and *Eremurus*-like spike is very distinct. *Buddleia variabilis magnifica* was again set up in small examples, and with pretty masses of the hardy *Heaths* a most effective group was made. Silver Flora medal.

Messrs. Barr and Sons, Covent Garden, had a good display of hardy flowers, in which *Agapanthus* (white and blue), *Koiphosias*, *Sunflowers*, *Scabiosa caucasica* and *alba*, *Gladiolus* in many shades of colour, with *Lobelias*, *Larkspurs*, *Rudbeckias*, and the hardy *Water Lilies* all played a part.

Gloxinias of an excellent strain were well displayed by Messrs. Veitch and Son, Limited, Chelsea. The plants were seedlings raised from February-sown seeds, and in their distinctive shades and many colour variations were all that could be desired in these valuable and easily-grown summer flowers. Pure white, crimson velvet, and rich purplish maroon and other shades were prominent. The spotted varieties were also well to the front, and in their way distinctly good and pleasing. *Exacum macranthum* was very fine in a group at one end of the exhibit.

Messrs. Watkins and Simpson, Covent Garden, showed many vases of the new pink Sweet Pea *Gladys Unwin*. The variety is of a very pleasing shade of pink, and cannot fail to be among the most welcome of these increasingly popular flowers.

A basket of *Hydrangea nivalis* came as an exhibit from Messrs. William Bull and Sons, Chelsea, the well-coloured examples making an effective group.

A large group of flowering and foliage plants came from Miss Adamson, South Villa, Regent's Park (gardener, Mr. G. Kelf). The chief items were *Celosias*, *Crotons* in many kinds, *Caladiums*, *Agapanthus*, and *Chimney Campanulas*, together with many handsome and well-furnished *Palms* that filled in the background. *Cannas*, *Lilium speciosum* vars., and other flowering plants were noted. Silver-gilt Flora medal.

Messrs. Gunn and Sons, Olton, Birmingham, had a very fine exhibit of herbaceous *Phloxes*. Some of the best sorts were *Fiancée*, *Sylphide*, *Matilda Seroa*, *Tapis Blanc*, and *The Bride* (all pure white kinds). William Robinson, Eton, *Adonis*, and *Cuculicott* are of scarlet or salmon shades. Tour Eiffel, pale salmon, and Jules Cambon, rosy lilac, with white centre, are very distinct.

A very showy group of hardy flowers came from a new exhibitor at these meetings, W. Artindale and Son, Nether Green, Sheffield. There were very fine masses of *Phloxes*, as *Moliere*, salmon; *Sylphide*, white; Mrs. J. Farquhar, rosy salmon, white centre, were all good. In addition was a rich display of *Carnations* (border kinds), in which the size and the freshness of the blossoms were noticeable features. The tufted *Pansies* were very finely shown, and we think we may say without hesitation that we have rarely seen these flowers arranged with such admirable taste. Singly disposed, the flowers in a free, open manner gave a lightness and attractiveness that the public were not slow to appreciate. There was quite a representative gathering of these flowers, and occupying a central position in a well-filled table, gave an excellent idea of their worth. *Gaillardias*, *Scabiosa caucasica*, *Pentstemons*, and *Lilies* of the *tigrinum* section were all in rich masses, as fresh as they were welcome.

The *Dahlia* exhibit from Mr. S. Mortimer, Farnham, Surrey, was quite one of the features of the show, and the *Cactus* varieties vied with the show and fancy kinds for the supremacy. In the first-named section were many seedlings raised by Mr. Mortimer, and of these we take

Louisa Powell, white; Pink Perfection; Dora, crimson; Alice, orange-scarlet; Mrs. Felton, carmine-crimson; and Curiosity, rich scarlet, with tubular twisted florets. In the other kinds H. F. Jackson, deepest maroon; Blush Queen; Mrs. Brunton, yellow; Queen Alexandra, buff and orange; Brilliant, deep scarlet; Rainbow, white and rosy mauve, were particularly good and noteworthy. The more formal show and fancy kinds are now less in favour, and one is not attracted by their form if pleased by the decided colours. They are, however, quite showy and good of their class. Some forty-eight of these latter were displayed on boards in the usual way, and did not in any sense lose by the good background of *Polypodium aureum*. Silver Flora medal.

A very fine group of *Chironia ixifera* with *Saxifraga tricolor superba* came from Messrs. H. Low and Co., Bush Hill Park, Enfield. The endless array of pink blossoms held erect on a shrubby habit, with stems and leaves of a glaucous hue. We have here one of the good plants of the past, and a subject, whether for its freedom or profuse flowering, is worthy of much greater attention than it now receives. As shown, the plant is about 1 foot high, but it will reach three times this height.

Mr. Amos Perry, Winchmore Hill, filled an entire table with the best hardy flowers. *Phloxes*, *Gaillardias*, *Montbretias*, herbaceous *Lobelias*, *Heleniums*, *Liatras*, *Buddleias*, *Delphiniums*, *Liliums*, such as L. Henry, L. longiflorum (a very fine mass), *Aster Thompsoni*, *Bravoa geminiflora*, *Helianthus tomentosus*, *Tiger Lilies*, *Asclepias*, *Taberna*, *Pentstemons*, *Day Lilies*, and other showy things in season, quite a feast of summer hardy flowers. Silver Banksian medal.

A very rich display of annuals was staged by Messrs. Cannell and Sons, Swanley. We believe we are not far from the truth when we say that for excellence and variety in conjunction with equally excellent taste in arranging the exhibit in question would be hard to beat. The *Asters*, in their endless array and finely-formed flowers, were simply superb, and we say this in the full knowledge and appreciation of a season of much difficulty in growing such things. *Salpiglossis*, *Calliopis*, *Lavatera*, and other things were arranged in fine masses that gave an excellent idea of their garden value. *Antirrhinum majus nanus* *Defiance* is of orange tone and very striking, while of much merit is the pink *Hollyhock* J. T. Bennett-Pe. Silver Flora medal.

A set of variegated *Phloxes* came from Mr. R. C. Sanders, Hulton Gardens, Tring. Some gold and others with silver markings.

AWARDS.

Buddleia variabilis magnifica.—This plant received the award of merit at the last meeting, and is now granted the first-class certificate by reason of its superiority.

Chironia ixifera.—A very charming new Holland plant, belonging to *Gentianae*. The pink blossoms are produced in the greatest profusion on a rather sturdy and stiff bush. The leaves are linear and very glaucous. From Messrs. Hugh Low and Co., E. field. Award of merit.

Dahlia W. Marshall (Cactus).—A neat and pretty flower, with long, elegant tubular florets. Colour, bronzy orange with yellow centre.

Dahlia T. A. Havemeyer (Cactus).—A large and spreading flower of a brilliant crimson-scarlet, the florets extra long and much fluted. This pair came from Messrs. James Stredwick and Son, St. Leonards, and each received the award of merit.

Gladiolus French Fleet.—A remarkable combination of salmon and maroon velvet, the latter appearing on the lower petals in striking contrast to the rest of the flower. It is quite a new break in these flowers. Award of merit.

Gladiolus Peace Envoy.—A nearly pure white flower of large size, with a slight colour staining the base of the flower internally. From Messrs. Kelway and Son, Langport. Award of merit.

ORCHID COMMITTEE.

Present: Mr. H. J. Veitch (chairman), Messrs. James O'Brien, H. Little, W. Boxall, G. F. Moore, F. W. Ashton, H. Ballantine, H. T. Pitt, H. A. Tracy, J. Douglas, and de B. Crawshaw.

Messrs. H. Low and Co., Enfield, showed some pretty varieties of *Odontoglossum Pescatorei*, *Phalenopsis violacea*, and others.

Major Holford, C.I.E., C.V.O., Tetbury, Gloucester, showed a grand group of Orchids, mostly *Cattleyas* and *Laelio-Cattleyas*.

Messrs. Sander and Sons, St. Albans, showed a fine specimen of *Miltunia vexillaria* var. *Queen Alexandra*, which received a first-class certificate in 1902.

J. Gurney Fowler, Esq. (gardener, Mr. J. Davis), showed a fine plant of *Laelia elegans* var. *Turneri*, for which a cultural commendation was given. Some other pretty *Cattleyas* came from the same source.

From F. Wellesley, Esq., Westfield, Woking (gardener, Mr. W. Hopkins), came *Cattleya Eldorado magnifica*, a lovely shade of mauve, with orange on the lip, and other pretty things.

From Messrs. Veitch and Sons, Chelsea, *Cypripedium* H. J. Veitch and *Cypripedium* × *Mima* var. *nigra*, two pretty varieties, were sent.

AWARD.

A first-class certificate was given for *Berthe Fournier Westonbirt variety*; the Lindley Medal (for culture) to Mr. Alexander, the grower, for a grand specimen of *Laelio-Cattleya elegans*; and a silver-gilt Flora medal for this group. This was a splendid exhibit, and we wish we had space to describe it more fully.

. The report of the Fruit Committee and their awards is unavoidably held over until next week.

MR. WATTS' CARNATIONS.

† We regret that no mention was made of the award given to Mr. Watts of St. Asaph by the Royal Horticultural Society at the meeting held on the 1st inst. This was a silver Banksian medal for a beautiful group of border Carnations.

FLOWER EXHIBITS AT THE ROYAL LANCASHIRE AGRICULTURAL SOCIETY.

AMONGST the many attractions of this successful show, which was held from the 3rd to the 7th inst., a few were interesting to the horticulturist.

Messrs. Sutton and Sons, Reading, had a collection of Potatoes (including *Superlative*, *Ninety-fold*, *May Queen*, &c.), baskets of flowers, *Palms*, &c., which brightened the well-furnished stand.

Mr. H. Middlehurst, Liverpool, had a bright display. The chief bed consisted of *Lilium Harrisii* in the centre, a ring of Iceland Poppies, with an edging of *Lobelia*. In addition were good Sweet Peas, *Gladiolus* baskets, &c.

Messrs. Dickson and Robinson had good plants of *Verbenas* The King, Miss Willmott, and The Bride, herbaceous cut flowers, lawn grass, &c.

Messrs. Dickson, Brown, and Tait, Manchester, showed *Nicotiana Sandera*, *Verbenas*, *Liliums*, culinary Peas, &c.

Messrs. Dicksons, Chester, had a pleasing display of conifers, herbaceous cut flowers, Roses, hanging baskets, &c.

Messrs. Webb and Sons, Stourbridge, showed *Gloxinias* (good types), *Gladiolus*, *Hollyhocks*, &c.

Mr. H. Eckford, Wem, Sweet Peas, the varieties *Scarlet Gem* and *King Edward VII.* being prominent.

Messrs. Clibrans, Altrincham, had their fine type of *Celosia*, *Phlox*, *Conifera*, well-fruited Apples, Pears, &c.

Messrs. W. and A. Edgell, Radstock, amateurs' span-roofed greenhouses.

Messrs. Castle, Westminster, Teak wood garden furniture.

Messrs. John White, Bedford, Inmans and Co., Stretford, H. and J. Caesar, Knutsford, and J. J. Moss, Stretford, summer-houses and garden seats.

Messrs. Skinner, Board and Co., Bristol, their wire tension greenhouse, with the maximum of light and a minimum cost for up-keep, frames, &c.

Messrs. A. Mason and Sons, Birmingham, span-roofed greenhouses.

Mr. W. H. Shilton, West Derby, lean-to and span-roofed greenhouse frames, &c.

Messrs. R. Halliday, Manchester, a well-proportioned span-roof house, frames, &c.

Messrs. E. C. Walton and Co., Newark, amateurs' span-roof greenhouses.

ERRATUM.—There is a mistake in THE GARDEN of last week, page 100, in the description of the new plants shown before the Royal Horticultural Society on the 1st inst. *Tritoma Prometheus* should read *Montbretia Prometheus*—the eighth paragraph.

A Bequest to Horticulture.—We mentioned some time ago that in the will of the late Mr. John Innes, "the Squire of Merton," a large sum was to be devoted to founding a horticultural school, both practical and scientific. The will has been proved valid. We shall refer to this matter next week.

Mr. Richard Dean.—We are very sorry to hear of the very serious illness of Mr. Richard Dean, V.M.H., but we hope for better news. Mr. Marshall, the chairman, communicated this news to the members of the floral committee on Tuesday last.

Obituary.—Ex-Provost Moncur. Mr. Alexander Hay Moncur, ex-Provost of Dundee, who died on the 5th inst., at the age of 75 years, was one of those who, although not professional horticulturists, are of the greatest service in the promotion of gardening. At the head of a very large and successful manufacturing business, and engaged in much municipal and benevolent work, ex-Provost Moncur was himself a keen horticulturist, who gave up much of his time to forwarding the work of the Dundee Horticultural Society, and whose services to the society as its president largely aided in raising it to its present successful position. At the opening of the Clepington (Dundee) Flower Show the day of his death, Councillor Melville, who opened the show, made a feeling reference to Mr. Moncur and to the loss Dundee had sustained by his death.—S. A.

GARDENING APPOINTMENT.

MR. GEORGE NELSON, for the past six years gardener to the late R. E. Ll. Richards, Esq., Caernarvon, Dolgelly, North Wales, as gardener to Viscount Newport, Castle Bromwich Hall, near Birmingham.

. The Yearly Subscription to THE GARDEN is: Inland 6s. 6d.; Foreign, 8s. 9d.

THE GARDEN.

No. 1762.—VOL. LXVIII.

AUGUST 26, 1905.

THE FRUIT CROPS.

IT does not seem long since we were writing of the prospects of the fruit season, when everything looked so fair and hopeful; but time has sped swiftly by, the summer is waning, and the harvest of the orchard and the garden will soon be over. Speaking as a whole we can only describe the fruit crops this year as spasmodic. There is no famine like there was in 1903, neither is there a general abundance similar to that of 1904, but in some places we have observed crops heavy enough to please anyone, while in others there is a great scarcity. As with localities so with individual trees. Here is an Apple tree heavily laden, there is another without a fruit; the same with Pears, the same with Plums; everywhere one may observe a patchiness, for which no doubt climatic conditions are mainly responsible.

Early prospects were as good as they well could be. Plums, Pears, and Cherries were sheets of blossom, but an ill-wind from the east set in, and it was pitiable to see petals shrivelled up and flowers destroyed. Here we have one explanation of the cause of patchy crops, for blooms that were sheltered from the stinging blasts set into fruit, while those which were exposed had no possible chance of doing so. Indeed, it is an open question whether fruit growers are not more at the mercy of the wind than frost during the flowering time, and when trees are planted in quantity the importance of providing wind-breaks of some kind should never be overlooked.

It was on May 22 and 23, however, that the hopes of many a fruit grower were dashed. Could it be otherwise, with the thermometer registering 10° of frost at so late a period? The day after the fatal frost we walked through an extensive Plum plantation, and observed with regret, the fruits as large as Peas, hopelessly blackened and ruined. We walked through the same plantation again quite recently and noticed more fully the effects of the frost. On the lower part of the plantation we could not see a fruit, but on higher ground, where the trees are above the spring frost line, the trees were well laden. A lesson is taught by this, namely, to avoid as far as possible planting fruit in low-lying situations, where the effects of

spring frosts are the most keenly felt. Could not fruit growers do more to ensure themselves against the risk of spring frosts? Possibly. We know of one instance in which smudge fires, similar to those used in Florida, were prepared and lighted on the two nights in May referred to above. The frost was successfully warded off and the fruit was saved, while that on the adjoining trees was destroyed. The cost of the experiment was only small, and we are convinced that it is well worth trying in other places where fruit is grown in large areas. It is not only the growers but also the people who have to buy fruit that realise the ill-effects of a sharp May frost. It was pitiable to see the first blooms on the Strawberries blackened and ruined, and though there was abundance of fruit from later flowers, there was a want of sweetness and flavour about the berries. In appearance they were dull and dirty-looking instead of being bright and inviting. Garden Strawberries were not so marked in this way, but we do not remember seeing so many uninviting-looking berries in the market.

"Blight" has played sad havoc this season, particularly amongst the Apples, and this word in fruit-growing parlance has a very comprehensive meaning. It is commonly used to describe the many pests which affect fruit trees, but is chiefly applied to the aphid family. When the Apples were in blossom and during the time that the fruit was setting a sticky honeydew was noticed in the trusses, and insects which in many cases were taken to be aphids. In reality they were *Psylla Mali*, the Apple sucker, and never of late years has this pest done so much damage. Heavy rains would have helped to clear the pest away, but none fell about that time, and thousands of embryo fruits were destroyed. Some growers promptly applied an insecticide and saved their Apples, but others looked at it in that philosophical way which is characteristic of Britons, and hoped for heavy rains to do the work for them. When the trees were masses of sticky honeydew and the tiny fruits fell off wholesale they realised that Nature had failed them, and that it was too late to lend human aid. But there are Apples on some trees and in some places, which may be explained by the double fact that certain sites and trees were sheltered from frost and wind, and that all varieties do not flower at the same time,

with the result that some suffered and others escaped.

Gooseberries and Currants were well covered with leaves when the deadly May frost came, and the fruit was protected and saved. Gooseberries in particular were so plentiful in the markets that there was a slump in prices, and in some cases they barely showed a margin of profit. Black Currants, on the other hand, were scarce and expensive, and for this the dreaded bud-mite is more responsible than the climate. Every year this pest appears to play greater havoc, and with no effective remedy forthcoming it is probable that in a few years Black Currant growing will cease to be a part of the fruit industry. In the place of Black Currants many people have planted Gooseberries, and this increase, together with the abundance of fruit, is doubtless the cause of the glut.

Raspberries have done well in most gardens, and good crops were obtained, but a fruit that is doubtless coming to the front is the Loganberry. It is strong and vigorous, crops heavily, and its Raspberry-Blackberry-like fruits are not only suitable for tarts, but they make delicious jam, and are well adapted for bottling. On account of its Blackberry-like nature the Loganberry does not need too liberal treatment, but it could be planted in many places where Raspberries do not succeed well, and there can be no two opinions about its usefulness.

THE MERTON BEQUEST.

If wisely laid out there should be no question but that the bequest left by the late Mr. Innes ought to prove of the utmost importance to the profession of gardening. It amounts, we understand, after certain necessary deductions have been made to meet expenses connected with various legacies and annuities, to about £200,000, which would yield, after the capital expenditure, a moderate revenue for carrying on a school devoted to the teaching of horticulture. It is to be hoped that the trustees will take a high view of their responsibilities. There would not, in our opinion, be any great benefit to the country in the organisation of a merely ordinary school where gardening would be taught on a more or less eleemosynary principle; but, on the other hand, a splendid opportunity is given for adding dignity to the profession. There is no lack in the country of ordinary working gardeners—men who,

when told what they have to do, are capable of carrying it through in a satisfactory manner; but the number of those who are fitted to lay out a garden that would compare not unfavourably with those of the past is necessarily very small. Indeed, nothing could more markedly illustrate the difficulty in finding and training men of taste than the scarcity there is, even of architects, who can be trusted to devise a garden on sound principles, and adapted to the soil and situation of its site.

It is our misfortune to come across examples of the crude, and, we may say, ignorant designs of men who profess to understand their calling, but who have not, as a matter of fact, mastered the elementary principles of it. Something, of course, there may be in the air, for it is very curious that taste in gardening seems to vary much with the ages. At some periods of history it appears to have been developed to an extraordinary degree among men who had nothing like the resources at the disposal of moderns, and at other times it seems to have faded away and given place to artificial and glaring ideas. In the Tudor period, for instance, gardening must have been very thoroughly understood by many of those who professed it, while in the late eighteenth and early nineteenth centuries fashions came into vogue that led to the spoiling of many a fine old house and castle by the so-called restoration of gardens. It would be invidious to particularise in this connexion, but we have no doubt that those of your readers who are familiar with the subject will think of several instances where walls that are veritable memorials of antiquity have had their effect spoiled by the addition of ill-thought-out gardening designs. We remember one especially, which belongs to a family than which few are older or of more influence in Great Britain. The castle is known by name wherever the English language is spoken, but the garden beside it is of no beauty or worth, owing to the simple fact that it was rearranged about the middle of last century.

A school of horticulture might be the means of preventing these disastrous errors from occurring. It ought to be made a means of elevating the calling into a profession or an art, and of turning out men—and perhaps women, too—capable of adding to those fine old gardens that are a national treasure and inheritance. Those who have influence in the matter will do well to make it felt at the beginning, for it scarcely needs saying that the foundation is everything. If the trustees take an intelligent view of their responsibilities they will create an institution that is very much in advance of anything of the kind now in existence, and it will anticipate in an intelligent manner the demand of the future. Unless they do this the chances are a very ordinary school will be formed on the model of those that already exist for other departments of industry. We would regard this as a pity, not because we in any way undervalue or deprecate the practical teaching of a trade, but because the opportunity seems to be a most exceptional one for enhancing the dignity of the profession and of doing something towards that gradual improvement in our ideas of gardening, the growth of which has been going on for at least two or three decades. The main thing, then, is to take the subject up in time and endeavour by every legitimate means to induce the trustees to construct their organisation on an original and advanced plan.

P. A. G.

PRIZES OPEN TO ALL. AUGUST.

ESSAY ON BULB PLANTING.

A First Prize of FOUR GUINEAS,
A Second Prize of TWO GUINEAS,
A Third Prize of ONE GUINEA,
And a Fourth Prize of HALF-A-GUINEA

are offered for the best Essay upon "*Beautiful Ways of Planting Hardy Spring-flowering Bulbs.*"

The essay must not exceed 1,000 words, and should mention the best kinds for massing in the flower garden, the border, in the wild garden, &c., in spring, and the most beautiful ways of using them. The essays must reach the offices of THE GARDEN, 20, Tavistock Street, Covent Garden, on or before the 31st inst. Envelopes must be marked "Competition." The essays must be written on one side of the paper only. Competitors not conforming to these rules will be disqualified. The Editor cannot undertake to return the MSS. of unsuccessful contributors.

PLAN OF A FLOWER BORDER.

A FIRST PRIZE of *Five Guineas* and a second prize of *Two Guineas* are offered for the best plan of a border of hardy perennials, 130 feet long by 10 feet wide, drawn to a scale of a quarter of an inch to a foot; bold grouping and good arrangement for colour and succession to be the main considerations. Half-hardy and hardy annuals and biennials may be included. The names of the plants to be written in their spaces on the plan—not referred to by letter or number. This competition remains open until the last day in September.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

August 22.—Rothsay and Oxford Flower Shows.

August 24.—Aberdeen Flower Show (three days); Wargrave and Knowl Hill Cottagers' Horticultural Show.

August 26.—Jedburgh Horticultural Show.

August 29.—Royal Horticultural Society's Meeting.

August 31.—Ellesmere and Sandy Horticultural Shows.

September 26.—National Rose Society's Autumn Rose Show, Horticultural Hall, Westminster (two days).

Royal Horticultural Society.—At the general meeting of the above society held on the 15th inst., Mr. George Bunyard, V.M.H., in the chair, the Countess of Lovelace, the Lady Mary Bressford, the Lady St. Helier, and Mr. H. Ailhusen, M.P., were among the new Fellows elected. A paper by Professor H. J. Webber, of the United States Department of Agriculture, was read on the "Progress of Horticulture in the United States," in which he treated of refrigeration, new varieties, hybridisation, methods of culture, and diseases and their remedies. The next exhibition and meeting of this society will be held on Tuesday next, when a lecture will be delivered by Mr. R. Lewis Castle on "Trees for Towns."

Flowers in the Queen's Park, Kilburn.—A "Lover of Flowers" writes: "There is a lovely display of flowers in the

Queen's Park, Kilburn, at the present time. I hope you will make this known through your valuable paper."

The Royal Botanic Society.—At the meeting of the Botanic Society recently Mr. J. S. Rubinstein, for the twentieth time, asked the society to increase its attractions and reform its charter. With a finger on the balance-sheet, he showed a growing deficit. Last year the loss was £1,237, the year before £950. On the debtor side of the sheet are debentures £28,600, interest accrued £1,572, temporary loans £800, and sundry creditors £2,531. Against this total the society can show only £400 in cash and buildings and plants "subject to depreciation." Last year it received £2,885 in subscriptions, £1,000 from a club recently started, £500 from exhibitions, and £1,000 from garden parties—roughly £5,500 to meet an expenditure of £6,800. "Advertise, advertise," said Mr. Rubinstein. "Let the public know that the garden exists." To which Mr. Brinsley Marlay, the vice-president, replied: "This is a private garden for the benefit of the Fellows. We want to keep it as a place of leisure, refinement, and rest. This is not a public society, nor was it ever intended to be. Why should the Fellows give up their private rights to the public?" The meeting closed, as usual, without any fresh action being decided upon.

HOLLYHOCKS.

STRAIGHT sentinels enclose it round,
My garden space, since there are found
Hollyhocks, goodly ranks and tall
That overtop its old cob wall;
And, as they boldly climb so high,
Over the neighbours' gardens pry!
Blush pink and ivory, deepest red,
Their colours flaunt above my head,
And tenderest primrose, like the sky
In April when sunset is nigh,
Engirt with colour, serried hosts
To guard it well, my garden boasts.—AWHILE.

Phlox Beranger.—Noteworthy among border Phloxes because of its refined colouring, delicious scent, dwarf sturdy growth, and many other good features, Phlox Beranger appears to be a plant one can recommend as likely to please everyone who will grow it well. Its height ranges from 2 feet to 3 feet, and about a dozen good trusses can well be expected from two year old plants. These are literally domes of blossom; every flower appears to be as perfect as one could wish, the petals rounded and overlapping, opening quite flat, and they measure over an inch in diameter. The colour is that pretty shade of soft rose seen in Darwin Tulip Clara Butt, and the white centre, flamed with tiny jets of vermillion, which radiate from the tube so as to appear star-like, adds greatly to the beauty of the flower. The free use of good Phlox in border planting is much to be recommended, for at this season they prove a great mainstay when there is so little in flower that can give pretty shades, and that in goodly sheaves of blossom that admit of free cutting for the vases indoors.—G. B. M.

Carnation Cecilia in Scotland.—This is the first season I have tried this beautiful yellow self on a border out of doors, and the results are most gratifying. The plants have thrown up strong spikes, carrying on the average eight to ten healthy buds, and they are opening perfectly, despite the showery weather and the oftentimes murky atmosphere of this the black country of Scotland. I have grown it for the past two seasons in 5-inch pots from layers, and disbudded down to one bloom. These have been quite equal in size to an ordinary Malmaison, and very seldom splitting its calyx although so large. It finds favour with everyone who sees it, and I feel certain it is one of those good things come to stay. The growth, too, is strong and healthy without being coarse, and appears very free from disease.—P. S. FOLLWELL, Coatbridge.

Lilium giganteum.—Lady Trevor of Brynkinalt, Chirk, kindly sends a photograph of *Lilium giganteum*. The bulbs were raised in pots and planted out in May, 1902. This is the first year that they have bloomed, other years they only threw up strong leaves. They only get the sun on the east side, but are protected from wind by a tall Yew tree. This year they grew nearly 11 feet high.

Willow Gentian (*Gentiana asclepiadea*).—This beautiful hardy plant is now flowering profusely in the Wisley Gardens, its flower-spikes appearing in all directions. That it blooms so freely in the autumn gives double value to the plant. The stems reach to about 2 feet in height, have long, pointed leaves, which give to the plant much the aspect of a Campanula. The flowers are produced in pairs from the axils of the leaves, and on one side of the stem. These flowers exactly resemble those of the blue Gentian in form and size, and are almost as blue. The plant seeds freely, and it is a matter for surprise that it is not found in every garden. It looks particularly pleasing when its spikes are seen cropping up here and there amidst low-growing Ferns or other hardy foliage plants. It should make a capital companion plant to autumn-flowering Pentstemons.—A. D.

Tomatoes at Wisley.—A conspicuous feature in several of the new glass houses at Wisley is a great trial of Tomatoes. No better one has been seen under the auspices of the Royal Horticultural Society for some years. The most interesting trial is that of pairs of plants put out on to a narrow soil border, the stems being trained up under the glass. There are in a couple of long span houses some 100 varieties, including, apparently, all the best in commerce. A small number of the fruit committee inspected these Tomatoes recently, and awarded three marks to seven varieties, such as seemed to be amongst so many that were good as exceptionally so. Samples of these were to be presented at the next meeting of the full committee at Vincent Square for further awards. In other houses great numbers of plants are grown erect, and amongst these Conference showed some wonderful crops. It is so evident now that so many varieties are really first-rate that it is most difficult to find any new one that shows any material advance. Perfection seems to have been practically reached.—A. D.

Montbretia aurantiaca.—The Montbretias, a garden race of hybrid Tritonias, are improving. Mr. George Davison of Westwick Gardens, Norwich, has given us two good varieties in George Davison and Prometheus, and several Continental raisers are running him very close with new things of merit. *Aurantiaca* is one of these latter hybrids that is destined to become popular. It is midway between George Davison and Chrysis, an older variety that never became common owing to its being a little tender, and *aurantiaca* seems much hardier than this. It has broad, healthy leafage, large corms, and the flower-spikes are much branched, bearing rich golden yellow flowers 2 inches across, widely bell-shaped, and slightly drooping. The spikes are a trifle crowded with flowers, and lack the freedom of Mr. Davison's varieties, but will still be valued as cut material for vases and serve to brighten the borders in August. The colouring is soft, rich, and very uniform, no trace of orange or red being apparent.—G. B. M.

The Golden Aster (*Chrysopsis villosa* Rutteri).—This little composite, known in America as Golden Aster, should prove of value both as a rock and border plant. It is midway between *Helichrysum* and *Inula ensifolia* in flower, resembling the latter plant so much that one can suggest for it a similar use. The plant does not exceed a foot in height, forming a close tuft of silvery glaucous colour, studded with glistening golden yellow flowers as large as the *Inula* mentioned, but the petals are more pointed

so as to appear star-like. It can be well grown in any poor soil, hence will thrive on dry rocky slopes and in borders where less sturdy plants will dry out. It is a pretty and distinct plant with refined flowers, in no wise weedy as are so many composites. It is not a new plant, but very rare.

Flower Show at Sopley Park, Christchurch.—Acting in the capacity as judge at this pretty Avon Valley village flower show the other day, I could not help being impressed with the great encouragement given to all the villagers and myself by the addition of various classes set forth in the schedule, quite distinct from the usual run of country exhibitions, this being partly, if not wholly, due to its enterprising secretary, Mr. Mason, the local school-master. In addition to the many classes for horticultural exhibits for the men, prizes were offered to their wives and daughters for the best cooked vegetables, poultry, and home-made bread, also needlework in various forms; while for the boys and girls of the village every encouragement is given them by offering money prizes for the best handwriting, freehand and geometrical drawing, wood-carving, &c. It is needless to say that all the various prizes were strongly competed for, much to the pleasure and satisfaction of Mr. and Mrs. Kemp Welsh, who very kindly throw open their park for the occasion each year.—GEORGE BURROWS, *Avon Castle, Ringwood.*

THE LAVENDER GARDEN.

SWEET and sweeter every day
Grow the bushes low and grey;
By the Briar hedge at dusk,
With the scent of dew-wet Musk,
Is there in the round world set
Aught more fragrant? Mignonette
At the borders' edge completes
This full draught of evening sweets.

All the little winds that blow,
Scented from this garden go;
Breaths of perfume far they bear
From the old herb corner fair,
Where but plants of quaker hue—
Wormwood, Rosemary, and Rue,
Cat-mint, Hyssop, old-world herbs—
That no careless hand disturbs,
Flourish, such a modest spot!
Is this gracious quiet plot!

EDITH C. M. DART.

The Potato crop.—On the South Coast at least there are already indications that the Potato will not escape a touch of disease, but we trust this will not prove severe. Until quite recently the leaf was quite clean and looked healthy, with every promise for a good crop of tubers, but now we find the brown spot surrounded with white mould, which is the first indication the grower has of what may prove disastrous results. A continuation of dry weather is to be hoped for, as undoubtedly this checks the spread of the fungus, or rather it does not make the same rapid headway as during dull, wet days. Close attention will be necessary to finish lifting all early varieties. The ground is hot and dry, and a good rain will turn it into a moist hot-bed, when a second growth is a natural result. We do not favour leaving the tubers exposed to the sun, neither should we recommend their being placed in heaps at once, as though they appear quite dry, they naturally sweat when in a bulk. This should be avoided where it is intended to store them for home use. The tubers harvest best when spread in thin layers for a few days in a cool, dry place before placing them in heaps or in deep bins. The same remarks to an extent may apply to those required for seed. These may be allowed to become green from exposure, but when left on the ground too long they are subjected to changes of weather, sun and rain, which we do not consider advisable. A careful selection of sets now, properly harvested

in dry, cool sheds, will prove an advantage to the planter next spring, as there will be no anxiety as to the quality and value of the stock he has to depend on. Those who are thinking of making a change in their seed might do worse than make a good selection at once, as probably a better sample could be obtained now than when a great run is made upon them next March.—RICHARD PARKER.

Solanum jasminoides.—This pretty, free-flowering species of *Solanum* is greatly valued as a hardy climber in the milder parts of these islands, while it is equally appreciated as a greenhouse plant in colder localities. Of late years it has considerably increased in favour for the flower garden during the summer months, for which purpose its continuous flowering qualities stand it in good stead. In some of the London parks it may be seen treated in this way, either as large specimens sunk in the turf or smaller ones 4 feet to 6 feet in height, used as dot plants in beds of miscellaneous subjects, which are now so popular. Not only is it very beautiful when laden with its clusters of white flowers, but it is especially interesting as furnishing an example of the wide difference that exists among the various members of the *Solanum* family, for this is a slender twiner, and some of the others are popular for bedding by reason of their large and handsome leaves, while first and foremost in the genus stands the indispensable Potato. Though *Solanums* occur over a greater part of the world, by far the larger number are natives of the Western Hemisphere, and it is from the southern portion that we have obtained *Solanum jasminoides*, as well as the species from whence the cultivated Potatoes have sprung.—T.

The Syrian Larkspur (*Delphinium sulphureum*).—One of the choicest and most effective border plants in flower at the time of writing is the Syrian Larkspur, an elegant plant as high as the tallest man, and very distinct from other Larkspurs in habit, leafage, and colour of the flowers. The roots are tuberous, like those of the common Dock, the leaves divided into many linear lobes like those of *Pellea*, and these are ornamental before the flower-spikes appear. The inflorescence is in the form of a candelabra, so freely does the main stem branch, and the pretty sulphur yellow flowers are thickly studded along each bit of stem. It is a showy border plant, a little difficult to manage in cold, winter-wet districts, but very easy to grow in any light soil. Old clumps, consisting of several flowering crowns, yield a wealth of flowers, and although these do not reach the size of the florist's *Delphiniums*, they are none the less effective in the mass. The plant never appears to perfect seeds so far as I have observed, but doubtless does so in warmer countries than our own. It was originally introduced as *D. Zaili*, and the name still prevails in many Continental gardens. THE GARDEN published a coloured plate of it some years ago.—G. B. M.

Flowers in Ravenscourt Park, Hammersmith.—In this, one of the best kept of the smaller parks under the control of the London County Council, the able superintendent, Mr. W. B. Gingell, has some dainty bedding arrangements this season. To particularise a few briefly: Not far from the public library in the grounds is an effective and very neat-looking scroll-work design composed of *Fairy Queen Begonia*, a variety which is found to come absolutely true from seed, and is very free blooming during the summer and autumn months. As a bedding plant it is very telling, other subjects used being *Fuchsia gracilis* variegata (attractive with its scarlet and violet flowers) and blue *Lobelias*, the whole edged by *Echeveria*. The scarcity of carpet bedding now makes one admire a good and well-kept design the more—such we have in the place under notice. Here is its composition: *Alternanthera versicolor*, *A. paronychioides aurea*, *A. p. aurea nana*,

A. magnifica, *Antennaria candida*, *Herniaria glabra*, with "dot" plants of *Echeveria metallica* and *Aloe frutescens*, with edgings of *Echeveria farinosa* and *E. secunda glauca*. Other good beds are *Canna Alphonse Bouvier*, a fine crimson flower, with a charmingly effective groundwork of *Veronica Andersoni variegata*. Well-coloured *Acalypha musaica* associate well with the graceful *Eulalia gracillima variegata*. *Begonia Argus*, with *Koniga maritima* and the well-known Fern-like *Grevillea robusta*, is an effective combination, and the same remarks apply to *Fuchsia gracilis variegata* in a groundwork of the old but still good *Iresine Herbetii*, *Fuchsia Scarcity* in a ground of *F. Cloth of Gold* (very bright) and *Ageratum*, *Fuchsia Ballet Girl* in a groundwork of *Viola J. B. Riding*, *Begonia Lady Stanhope*, and *Viola rosea pallida*, well named, and a capital bedder. The rock gardens contain many things in flower of this deservedly popular class of plants, and among a good selection of trees and shrubs that fine New Zealand shrub *Olearia Haastii* was very conspicuous crowded with its masses of white, honey-scented flowers.—*QVO.*

Large Peaches.—I have recently read in a gardening journal the statement of a correspondent that one of his Peaches weighed 17oz., and he enquires if a heavier one has been known. In Vol. XVIII., page 278, a correspondent mentions a Late Admirable which weighed 15½oz. I have just weighed one of Rivers' Nectarine Peaches, which turned the scale at 18oz. They often weigh more than a pound.—*GEORGE MAY.*

The trials of the National Potato Society.—Potato trials of considerable interest are being conducted in various parts of the country, and may be inspected by members and others interested. The following are the counties, and intending visitors are advised to communicate with the gentlemen supervising the trials, whose names and addresses are appended. Berkshire.—Professor Percival and Mr. C. Foster, University College, Reading. Surrey.—Mr. A. Dean, 62, Richmond Road, Kingston-on-Thames. Warwickshire.—Mr. H. Dunkin, Coventry Road, Warwick. Somersetshire.—Mr. J. Ettle, Stanley Grove Road, Weston-super-Mare. Oxfordshire.—Mr. S. Heaton, Hill View Road, Oxford. Northumberland.—Professor Gilchrist, College of Science, Newcastle-on-Tyne. Shropshire.—Mr. G. T. Malthouse, Harper Adams College, Newport, Salop. Cheshire.—Mr. W. Neild, The College, Holmes Chapel. Yorkshire.—Mr. T. Redington, Agricultural College, Leeds. Staffordshire.—Mr. J. C. Rushton, County Education Offices, Stafford. Worcestershire.—Mr. J. Udale, Ombersley Road, Droitwich. Valuable trials are also being conducted at Burgoyne's Farm, Impington, near Cambridge (Histon Station). The farm superintendent is Mr. H. Henshaw. Messrs. Poad and Sons (York) and William Deal (Kelvedon, Essex) are conducting trials of planting at different distances apart.

The gold medal Gooseberries at Westminster.—One rarely sees such a splendid lot of these fruits and in such great variety as those staged at the general meeting of the Royal Horticultural Society at Westminster on the 1st inst. There were over 100 varieties in baskets, and a large number of trained or cordon trees. I have noted this very fine exhibit as the gold medal collection owing to their having received this award, which is a record for one kind of hardy fruit, but thoroughly well deserved, owing to their splendid quality and the great number of varieties. What made the exhibit more interesting was the young trees which formed a background, and this was worth special notice, as here amateurs and growers who like these fruits could see how well this mode of training suited the Gooseberry—its simplicity, usefulness, the small space occupied, and the heavy crop secured. The fruits were grown at Messrs. Veitch's Langley Nurseries, Slough, and of course under the best conditions as regards

culture, but the Gooseberry is not fastidious. It does well near large towns if the trees are kept free from birds. I am aware the caterpillar is also troublesome, but this may be checked at the start and later on should it reappear. The plant gives a heavy return, and these trees well repay a permanent protector; the cost is soon repaid by the crop secured. Trees grown and trained fan-shaped or single and double cordons give little trouble. The fruits are readily gathered, and by free exposure are of splendid quality.—*G. WYTHES.*

Verbenas at Shirley.—In the garden of the Rev. W. Wilks, which constitutes the home of the famous Shirley Poppy, there were noticeable, recently, some of the bluest Verbenas



DUNDEE RAMBLER ROSE ON OLD APPLE TREE IN THE MANOR GARDEN, MILTON BRYAN.

raised from seed several visitors had yet seen. Generally, while shades varied slightly, deep rich blue tints predominated. It is remarkable that such true colours should thus be obtainable from seed-raised plants. In the days when Verbenas were largely propagated by means of cuttings and used for bedding, such blues as were seen at Shirley would have been widely and eagerly grown. Behind the Verbenas, and charmingly blending with them, were many plants, also from seed, of *Petunia Lady Courtenay*. The plants are of moderate growth, flowers single, of medium size, rounded, and of a rich rosy carmine colour, with white throat. This variety is undoubtedly one of the most beautiful *Petunias* in cultivation for bedding or window boxes, and is a great advance on the old Countess of Ellesmere. It comes very true from seed—a matter of much importance.—*A. D.*

IV.—THE GARDENS OF WARLEY PLACE.

(Continued from page 106.)

LOW, tufted plants form many-coloured carpets of great beauty, and are planted in well-considered variety. Various *Daphne*, *Arabis*, *Eryngium*, *Anemone*, *Geranium*, *Campanula*, *Viola*, *Himalayan Primula*, *Polemonium*, *Cypripedium*, *Dodecatheon*, the *Meconopsis* of the Himalayas and Thibet, Orchids, various *Erodium*, Gentians of the purpurea group, and the larger Saxifrages forming tufts that stand out, boldly outlined in the landscape, here represent the vegetation of mountain regions. The rock plants proper are shown by the Saxifrages of the *Euaizoonia* and *Kabschia* groups, the alpine Primulas, chiefly by the *Auricula* group. There are besides, *Campanula elatior*, *elatines*, *Raineri*, *Zoyzii*, *excisa*, *Monetiana*, *nivalis*, *garganica*, *rupestris*, *saxatiles*, *mirabilis*; *Ranunculus alpestris*, *bilobus*, *Seguieri*, *glacialis*, *Pthora*, *Thora*, *rutae-folius*; the kinds of *Thlaspi*; *Viola cenisia*, *calcarata*, *biflora*; the dwarf Veronics; *Aubrietias*, *Sedums*, and *Sempervivums*; *Conandra ramondoides*, *Dianthus acaulis*, *neglectus*, *alpinus*, *alpestris*, *glacialis*, *gelidus*, *callizonus*, *Freynei*; *Achillea Herba-rota*, *Clavencia*, *moschata*, *atrata*, *Huteri*, *transylvanica*; *Androsace glacialis*, *Helvetica*, *pubescens*, *Chumbyi*, *carnea*, *Laggeri*, *pyrenaica*, *ciliata*, *cylindrica*; *Asperula nitida*, *athoa*; *Artemisia pedemontana*, *glacialis*, *spicata*, *Vallesiana*; *Potentilla nitida*, *Geranium sessiliflorum*, a whole collection of *Acantholimon*; *Draba aizoides*, *aurea*, *borealis*, *pyrenaica*, *lactea*, *Sauteri*, *tomentosa*; *Senecio carniolicus*, *leucophyllus*, *uniflorus*; *Lithospermum petraeum*, *olae-folium*, *Gastoni*, *rosmarinifolium*, *graminifolium*, *prostratum*, *intermedium*; *Silene acaulis*, *correvontiana*; *Valeriana celtica* and others; *Linnaea borealis*. All these and many more transport one to Alpine heights and the highest mountain slopes.

By water edges, and in cool, shady places, rare and beautiful Ferns grow in abundance, and moisture-loving plants such as the Trilliums, the American *Cypripediums*, *Saxifraga Tellimoides*, *huettiana* and *peltata*, the marsh Orchids; *Houstonia*, *Rhexia virginica*, *Gentiana Bigelowi*, *alba*, *bavarica*, *Pneumonanthe*, *asclepiadæa*, *Saponaria*, *macrophylla*, *Andreus* and *septemfida*, *Helonias bullata*, *Astilbe Davidi*, and others; *Primula Sikkimensis*, *capitata*, *luteola* and others; *Podophyllum*, *Dalibarda*, *Ourisia coccinea*, a collection of *Pinguicula*, *Rodgersia*, &c.

From the waters of the smaller pond rise the flowers of *Ranunculus aquatilis*, of *Villarsia*, and of all the small, pretty plants that are not so suitable for the larger piece of water.

Among the plants rarely seen in the open garden that are hardy in the excellent climate of Warley are *Damnacanthus indicus*, *Daphne indica*, *Genkwa*, and *collina*; *Colletia horrida* and *Bictonensis*, *Convolvulus cneorum*, *Stans* and *mauritanicus*; *Erica lusitanica*, *Desfontainæ spinosa*, *Phyllexia buxifolia*, *Umbellularia californica*, *Erinacea pungens*, *Rubus australis*, and *Eugenia Ugni*. Then in the nursery some of the most difficult plants are grown, with all the care required by their exacting nature. Among these I noted *Androsace imbricata*, *Pacheri*,

Wulfeniana, *Achillea nana*, and *kelleriana*; *Artemisia mutellaria*, *Baumgartneri*, and *Villarsii*; *Viola cenisia* and *alpina*, *Erodium chrysanthum*, *absinthoides*, *Erysimum Kotschyannum*, *purpureum*, *thyrsoides* and *pumilum*; *Thlaspi rotundifolium* and *carinosum*; *Alyssum pyrenaicum*, *Campanula petraea*, *alpina* and *cenisia*; *Eritrichium nanum*, *Lithospermum canescens*, *Linaria alpina* and *petraea*, *Onosma Helvetica*, *stellulatum*, *Bourgaei* and *sericeum*, &c.

The plants are named in accordance with the "Index Kewensis," and the labelling is extremely methodical, thus greatly facilitating study and comparison. The cultural details are excellent; indeed, nothing but praise can be offered to the author of, and the fellow workers in, that superb and comprehensive work that we know as the Gardens of Warley. H. CORREYON.

THE EDITOR'S TABLE.

A NEW TAGETES.

Mr. Gumbleton very kindly sends from Belgrove, Queenstown, flowers of a new German dwarf-growing Tagetes named *paviflora*, or the Tawny, which comes quite true from seed. It is a very striking flower, of a deep crimson-brown, with a golden margin to the florets. An effective and charming flower for its rich and beautiful colouring.

MENTZELIA ORNATA.

Mr. Gumbleton also sends flowers of this interesting plant. Its creamy white flowers have a certain charm, but, as our correspondent truly says, "it is disappointing, as it does not come up to its portrait in the *Botanical Magazine* in 1812, when the plate was prepared from dried specimens."

DIMORPHOTHECA AURANTIACA.

A bright, sunny flower is this from Mr. Gumbleton—an intense orange colour, and dark brown centre. Its colouring is wonderfully pure. This is the *Calendula tragus* of the *Botanical Register*, l, 28. It is an annual flower to make note of.

SEEDLING CARNATIONS AND PICOTEEES.

Miss M. Owen sends from Ty Coch, near Carnarvon, North Wales, very charming seedlings of many shades of colour, and among them some good selfs, the yellow and crimson being very deep and distinct.

CARNATION GLOWWORM.

Mr. Goodwin, The Elms, Kidderminster, writes: "I send you a gathering of *Carnation Glowworm*, a magnificent scarlet self, which received an award of merit from the Royal Horticultural Society last season. Mr. C. H. Herbert sent me a single plant in the spring of 1903, and I have grown it ever since. A bed containing forty-eight plants, all raised from this one, is now a grand sight, as there are dozens of flowers. *Glowworm* is a most vigorous grower, rather late, extremely floriferous, and is a non-burster. These self Carnations are quite indispensable in the garden, and, although on such light soil as this they require deep, well-made beds, they are well worth all the trouble. Thrips have been our greatest enemy, but we have kept them in check by means of spraying with a weak solution of 'Abol.' I want a good yellow self suitable for the border, and should like to hear from anyone who would be willing to make an exchange with me."

[The *Carnation* is all that Mr. Goodwin says of it. The flowers are of wonderful colour—a pure

scarlet, without a suspicion of any foreign shade; they do not burst, and must have a fine effect in the garden.—Ed.]

CARNATIONS FROM MESSRS. LAING AND MATHER.

Messrs. Laing and Mather send from their nursery at Kelso, N.B., a very interesting selection of seedling Carnations and Picotees. We are pleased to notice the following as the finest of those sent:

Athole S. Hay.—A distinct variety, with flakes of scarlet on a pinky white ground.

Lady Nina Balfour.—A beautiful variety, the colour a lovely blush self, and the flowers are large, with broad florets of strong fragrance. The flowers are produced on strong stems, and for this reason it may be strongly recommended for cutting. It is one of the most meritorious of recent acquisitions to the list of self Carnations, and we strongly recommend it.

Sir Richard Waldie-Griffith.—We remember this being exhibited at the meeting of the Royal Horticultural Society on August 13, 1901, when it received an award of merit, and we are glad to see several fine flowers of it again. The plant is very free, strong, and the flowers are beautiful in colour, which is a warm orange-scarlet, a shade which we have too little of. The calyx does not split, so that it is of exceptional usefulness in the outdoor garden. It has freedom, beautiful colouring, and a warm Clove-like fragrance to recommend it.

Francis Samuelson.—The colour of this is best described as orange-apricot. It is in all ways a good border Carnation, the flower keeping its petals within the calyx, and the growth is very strong.

Amphion is clear yellow in colour, with an intense rose edge.

Duchess of Roxburgh is a conspicuous variety, the colouring being very bright and distinct. The ground colour is deep primrose, cut into with stripes of quite a heliotrope and terra-cotta shade. It fortunately does not burst, and the growth is very strong.

Hidalgo is one of the darkest fancy Carnations we have seen. The ground colour is deep yellow, with heavy markings of almost black.

THE LATE SIR JOSEPH PAXTON AND HIS NATIVE VILLAGE.

NESTLING snugly among the trees, two and a-half miles from Woburn—just on the borders of Woburn Abbey and Park (the noble seat of the Duke of Bedford)—lies the pretty old-world village of Milton Bryan, known to many as the birthplace of one of the most famous gardeners of the nineteenth century, the late Sir Joseph Paxton, who was born of poor parents in the year 1803.

In the centre of the village stands the Manor House, a charming old country residence in the Elizabethan style, one of the few still unchanged in this part of Bedfordshire. It was for many years the country residence of the Inglis family, and here for some time Sir Joseph's father held the position of gardener for Sir Hugh Inglis, a name well known even to this day by members of the East India Company.

The garden and grounds are large, and have many interesting trees and plants. The lordly Cedars, the seed of which was brought from Lebanon by Sir Robert Inglis a few years after Paxton was born, are admired by everyone, as is also the large white Beam, which one could quite well imagine had been there almost as long as the house itself. The flower garden is by no means confined to beds and borders, and those who are interested in the wild garden will find much to please them, especially in the spring and early summer, when the Aconites are in flower. The shrubbery is then carpeted with Primroses, Anemones, and Bluebells, Daffodils and Narcissi wave above the grass in the park, and Cowslips are everywhere, while the hedgerows are in turn smothered with the blossom of Blackthorn, Hawthorn, Viburnum lantana, the Dog Rose, and many other flowering shrubs.

The church standing on the brow of the hill can be seen for many miles, and from the top of the tower are beautiful views of the counties of Bedfordshire, Buckinghamshire, and Hertfordshire. On one side is Woburn Park, with its



THE MANOR HOUSE, MILTON BRYAN (EAST FRONT).



OLD SCHOOL-HOUSE, MILTON BRYAN, WHERE SIR JOSEPH PAXTON RECEIVED HIS EARLY EDUCATION.

deer, zebras, wild asses, and numerous other wild animals quietly grazing under the trees; on the other is the rectory with its pretty and well-cultivated garden, for the present rector is an enthusiastic gardener. On the north side is the old school-house, where young Paxton, and indeed all Milton boys of that day, received their early education. For this inestimable benefit of a free education the villagers then, as now, were indebted to the Inglis family, who built, supported, and finally endowed the schools many years before free education became a popular political cry. This structure, after the building of new schools, was for some years occupied as a dwelling-house, but is now unoccupied, and in a few months will probably be pulled down. Paxton's father died when he was only seven years of age, and the widow and family then had a hard struggle for existence. Like most boys at that time Paxton left school at an early age, and obtained a situation as garden boy in the gardens of Sir G. O. P. Turner of Battlesden Park. Here he remained for a few years only, but at that early age we are told that he "showed his seniors many new ways of forcing flowers and vegetables." A year or two later he was apprenticed to William Giffen, a skilful fruit grower of Woodhall Park, Watton, Herts. At the age of eighteen he returned to Battlesden, and there helped his brother Thomas design and construct the large lake—now the property and a favourite fishing resort of the Duke of Bedford.

After this he entered the service of the Duke of Somerset, but in 1823, after the Horticultural Society leased the Chiswick Gardens from the Duke of Devonshire, he obtained employment there in the arboretum. The Duke of Devonshire was at that time in Russia, and while there sent over to the Royal Horticultural Society some Russian plants. When he returned he was anxious to know how they had progressed. No one remembered them, but at last it was found that "young Paxton" had been taking care of them. He was sent for, and gave the Duke a clear and concise account of what had been done with them and how they had progressed.

The Duke—Sir George Groves tells us—was greatly pleased by his intelligence, open and frank manner, and used often to watch him and talk to him at his work. He was appointed foreman in 1824, but two years later we find he was only receiving 18s. per week, and, being anxious to better himself, was thinking of starting for America, when one morning, as he was busily engaged at his work, the Duke went down to him, told him that his gardener at Chatsworth was dead, and asked him if he would accept the post.

Paxton was delighted with the offer, accepted it, and went down to Chatsworth by the night mail to see what the place was like. He arrived there quite early in the morning, before the men had started work, and, while walking in the garden at that early hour, met for the first time the lady who, a little later, became his wife. He knew, of course, that this was a step up the ladder of life, but he little thought that it was a step, too, on the road to fame. He at once began to make improvements in the garden, and afterwards on the estate. It was here that he first practised the art of a landscape gardener. A year or two later, Sir Robert Schombergk—a great friend of the Duke—when travelling in South Africa discovered the Victoria Regia Lily, and sent a plant of it to the Duke, who was extremely pleased, and ordered Paxton to build a house for it. It is there, too, that it may even now be seen at its best. The beautiful gardens and the famous conservatory—this was well illustrated in No. 1523, Vol. LIX. of THE GARDEN—at Chatsworth, as well as the Crystal Palace at Sydenham, are monuments of his skill.

The Duke of Devonshire entertained many distinguished guests while Paxton was there, but Paxton admits that there were none that he was more pleased to see than Sir Robert and Lady Inglis, his greatest benefactor, and he was determined that they should see the place as no one else had ever seen it. Sir Robert was proud to see one of his village boys in so great and responsible a position, and Paxton thanked him for his generous help to himself and parents in bygone days.

I should take up far too much space were I to attempt to tell of all that he did, his travels, the improvements he made, the books he wrote, and famous buildings he designed. There are probably few gardeners who have won the love, respect, and esteem, or gained the friendship of their employers in the way that he did. The great act of his life, however, was his coming to the aid of the building committee with his admirable design for the building so successfully erected in Hyde Park for the Great Exhibition in 1851.

Most of your readers are doubtless aware how the promoters of that exhibition were in despair of procuring a practical design, and fears were entertained that the project would be compulsorily abandoned, as 233 plans had been rejected. It was then that Paxton submitted one on the same principle as the marvellous conservatory at Chatsworth, referred to above, and it was in grateful recognition of his skill and ingenuity in solving the question that the order of knighthood was conferred upon him. In response to a special request, he consented to prepare an improved plan for the reconstruction of the great "glass palace." His scheme was adopted; the building was taken down after the exhibition was closed, when it was rebuilt at Sydenham (on a much more extensive scale), where it still forms part of the popular

Crystal Palace. For his successful achievement further honours were bestowed upon him, including his unopposed return to Parliament as member for Coventry. CHARLES J. KILBY.

TOWN FRONT FLOWER GARDENS.

WHILE from time to time much appears in newspapers with respect to the great need there is for efforts to be made to create floral beauty in town streets, in the Borough of Kingston-on-Thames something of a very practical kind in that direction has been in operation for several years. The town competitions annually instituted are controlled by a committee consisting of members of the corporation, and the energetic hon. secretary is Mr. Councillor Lyne, J.P., the judges being the Surrey Education Committee's horticultural instructors—Messrs. John Wright, V.M.H., and A. Dean, V.M.H.—whose services are for this purpose placed at the Borough Committee's disposal. There are three diverse classes, viz., for gardens over half a rod in area, for others under half a rod, and for window boxes. The town is divided into equal portions, and there are three similar classes in each half, or six in all. Four prizes are given in each class, or twenty-four in all, and this year, to encourage fresh competitors' appearance in the four garden classes, two additional prizes were offered for those who had not won a prize before. These added made thirty-two prizes, and all were allotted. In the borough there are literally thousands of small front or forecourt gardens, and, while the number competing was relatively small—about fifty—yet the influence of the yearly competitions has been widely felt, as great numbers of these small gardens are now prettily furnished in the summer with flowering plants, although not put into competition. When the results of the judging are published, very many residents make a rule

to go round and see the successful gardens, and in that way great encouragement is furnished to the improving of their own gardens or windows.

A marked feature in many of the competing gardens is seen in the use of climbers or trailing plants hung in baskets or fixed on brackets, especially of Fuchsias, Begonias, Lobelias, Campanulas, and similar things, and there are cases in which the entire front of a house is almost wholly hidden in a mass of floral beauty. The labour involved in creating these effects must be great indeed. Happily, in every case all competitive objects can be seen and thoroughly enjoyed by the passer-by. An example of the labour put forth to secure a high position is manifested in the garden of a newspaper compositor, who is the first prize winner in the large garden class in the north division. Last year rather weak, he this year has created a front of singular beauty and refinement, using even the wall divisions on either side, as well as his house front and garden, for flowering and foliage plants in a way that would do credit to the best gardener in the kingdom.

There may be a little tendency in some cases to crowd too much, but when good advice is tendered it is readily accepted. A neat garden last year, having the beds and borders edged with wood strips, this year shows these formal edgings hidden with variegated *Dactylis* with excellent effect. The small-leaved variegated *Nepeta* is also much used, with *Creeping Jenny*, *Campanula isophylla*, *Musk*, *Lobelia*, and *Ivy-leaved Pelargoniums*, for the draping of window boxes. In some gardens standard Fuchsias, wonderfully well preserved during the winter, are very effective. The entries are sent in early in July. An inspection of the gardens and boxes is made during that month, and the final judging takes place early in August, the period most acceptable to the competitors.

A. D.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

THE WILLOW TREE IN NEW ZEALAND.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In THE GARDEN of February 18 a question is asked, "Is it possible to procure cuttings or slips from the Willow Tree that grew beside the grave of Napoleon at St. Helena?" It may be of interest to your correspondent to know that the Weeping Willow in New Zealand came from the one in question. In the year 1840 H.M. brig *Britomart* cast anchor in the harbour of Akaroa (Bank's Peninsula, Canterbury). The object of the brig's advent to this place was the proclamation of the Queen's sovereignty over the southern islands of New Zealand, and thus to forestall the expected French mission, which was known to have a similar object in view on behalf of the French Government. Five days after the British flag was unfurled the French man-of-war *L'Aube* arrived, but too late. The next day the Comte de Paris entered Akaroa with emigrants from Bordeaux to found their expected colony. On the voyage to New Zealand the vessels touched at St. Helena, and cuttings were taken from the Willow that grew beside the grave of their great countryman, and from these cuttings we have the Weeping Willows in New Zealand.

Dunedin.

WALTER BULL.

PELARGONIUM BLACK VESUVIUS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I have much admired a very fine bed of Pelargoniums in Hyde Park this year named Black Vesuvius. I enquired of several exhibitors

of Pelargoniums at the Royal Horticultural Society's Chelsea show if they could supply me with plants or cuttings of this variety, but they all said they did not stock it, as "it did not go down with the public." The contrast of the vivid scarlet flowers and the dark maroon leaves produce, I consider, a very fine effect when massed, and I should be very glad if you or any of your readers could let me know for what reason this Pelargonium has "not gone down with the public," and also if you could tell me where I could get plants or cuttings of the variety.

DORMER.

JEFFERIES' LITTLE QUEEN LETTUCE.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I endorse all Mr. Wythes has said of this Lettuce, having known it now for the last sixteen years. It is a beautiful little Cos Lettuce, very early, and above all it does not run to seed freely. It is very distinct in growth, and is as sweet as a Nut. It is also a good Lettuce for a cold frame for very early work.

A. E. MESSAGE.

The Gardens, Brookdean, Fittleworth, Sussex.

BAMBOOS FLOWERING.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—On page 88 "N. B." asks for reports as to Bamboos flowering in other collections. Unfortunately, this gardening calamity will, I fear, be found to be universal as regards the three kinds, *Simoni*, *Boryana*, and *Henonis*. *Arundinaria Simoni*, which "The Bamboo Garden" (page 66) says "seeds without dying," flowered and fruited here in 1903; next year it looked perfectly dead, which, after all, is what really matters, and had to be thrown away, leaving a terrible gap, for it had been growing for over eighteen years.

In 1904 a very fine clump of *Phyllostachys boryana* seeded and died (as did all of this species at Kew), and now *Henonis*, which "The Bamboo Garden" rightly calls the best of all, has flowered and will evidently have to go in autumn, leaving a ghastly blank in the important position which it had graced and beautified for fifteen years.

Can anyone say when we are likely to lose other species? I have just run a line round my biggest clump of *Arundinaria japonica*, and find that the circumference is

120 feet—a serious loss if that goes! I bought the original plant thirty years ago.

The Holt, Harrow Weald. A. KINGSMILL.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In reply to your correspondent "N. B." of the 12th inst., I regret to say that last year we lost three plants of *Phyllostachys Henonis* and three plants of *Arundinaria Simoni* through flowering. I may say that days were spent on one plant of *Phyllostachys Henonis* trying to save it by picking off every flower, but it was all in vain. This year we have three more fine plants of *P. Henonis* and one plant of *Arundinaria Nigra* blooming. Those varieties not showing any signs of flowering here up to the present are *Arundinaria nitida*, *Bambusa palmata*, *Phyllostachys Quilicoides*, *P. viridiglaucescens*, *P. aurea*, and *Thamnocalamus Falconeri*. I am afraid this flowering of the Bamboos will deter many from planting them.

F. W. RICH.

The Gardens, Elfordleigh, Plympton, S. Devon.

THE ROSE GARDEN.

TWO GOOD YELLOW ROSES.

LOVERS of yellow Roses would do well to add to their collections *Billiard* et *Barre* and *Mme. Pierre Cochet*, two of the best I know. The former is a charming *Dijon Tea Rose*, a strong grower, and admirably suited for filling the centre of large Rose beds. It is seldom more



CELINE FORESTIER ROSE ON PERGOLA AT THE RECTORY, MILTON BRYAN.

than 4 feet or 5 feet high, so that we cannot class it as a climber. The colour is a distinct orange yellow, and very striking when from plants grown in a partly shaded situation. Mme. Pierre Cochet has been extremely good with us this year. The bud is like W. A. Richardson. It is a mistake to plant it against a hot wall. Its proper place is on a bank, pegged down, or allowed to ramble over a tree stump out in the open; by so doing the true colour is maintained.

Aron Castle Gardens. GEORGE BURROWS.

THE JAPANESE ROSE (ROSA WICHURAIANA).

THE various hybrids—in the production of which this Japanese species has played a part—are so numerous, and in many instances so popular, that the great merits of the type are very generally overlooked. Why this is so it is difficult to say, for the typical *Rosa wichuraiana* is so distinct and beautiful from anything else that we have nothing to compare with it in gardens. It is now a dozen years since I first saw this Rose in flower at Kew, and I then thought it one of the most beautiful I had ever met with, an opinion which is still retained, in spite of the long list of *wichuraiana* hybrids, none of which are, to my mind, its equal—at least, their habit is so different that a comparison can scarcely be made. The most striking features of this Rose are its perfectly prostrate habit, its glossy leaves, vigorous growth, and profusion of pure white flowers. While so much is written every week about the various hybrids, the typical species never has a word in its favour, hence this short note.

T.

ROSE EARL OF WARWICK.

THIS exquisite Hybrid Tea will take a leading position among decorative Roses. Not only is it a valuable addition to garden Roses, but it will also prove suitable for exhibition. I saw a beautiful specimen in the first prize seventy-two this year at the National Rose Show. Messrs. William Paul and Son are to be congratulated upon the raising of this Rose. The petals of Earl of Warwick are of enormous size, even rivalling Mrs. W. J. Grant in this respect, and there seems to be some of the blood of the old *Souvenir d'un Ami* in the Rose, although the flowers are erect. The colour of Earl of Warwick is salmon-pink, the centre of the flower warmly flushed with vermillion, approaching the tint of colour that gives Mme. Abel Chatenay such charm. The growth is strong, equal to the best of the Hybrid Teas. The fragrance is not specially strong, rather resembling that of the Tea-scented Roses. All who value the bold decorative effect of such Roses as G. Nabonnand will welcome Earl of Warwick.

P.

ROSE PHILADELPHIA RAMBLER.

THIS is a splendid addition to the rambling Roses, being far superior to Crimson Rambler, which is saying a great deal. The flowers are deeper in colour, larger, and fuller, and do not present such an untidy appearance when fading—a great drawback with Crimson Rambler. The

Philadelphia Rambler seems in every way adapted for covering pergolas, the sides of rustic bridges, or stumps in the open. Seen at a distance the colour is most effective.

GEORGE BURROWS.

TWO BEAUTIFUL YELLOW ROSES.

ALTHOUGH there are a number of Roses that are described as yellow and gold, in reality there are few that are of striking effect on the plant. We seem to have a good novelty in *Perle des Jaunes*. It might be described as a form of Mme. Falcot, with the rich golden colour of Ma Capucine and W. A. Richardson combined. This Rose should prove to be a good bedding variety, but I am



CAMPANULA CARPATICA WHITE STAR.

(Natural size. Shown by Mr. Prichard, Riverslea Nursery, Christchurch, at the meeting of the Royal Horticultural Society on the 1st inst., and given an award of merit.)

afraid it is rather tender. It possesses the free-branching habit of Mme. Falcot. The other variety I would commend is *Berthe de Bary de Zahony*. Here, again, there is a lovely golden colour. In the bud state this Rose is most beautiful, of a shape almost perfect, and I imagine it will be much in request as a button-hole Rose. The growth in this case is equal to Mme. Falcot. It is a great pity that French raisers do not select better names, for if anything will hinder the popularising of varieties it is this.

P.

NEW AND RARE PLANTS.

GLADIOLUS LADY INCHQUIN.

THIS is the time of the Gladiolus, and the beautiful nurseries of Messrs. Kelway and Son, Langport, are aglow with colour from the tall handsome spikes. A little of this resplendent beauty drifts to the large exhibitions from time to time, and this was so at the meeting of the Royal Horticultural Society on the 1st inst., when the firm showed the beautiful new variety Lady Inchquin, which must rank among the finest of the Gladioli raised at Langport. The flowers are of large size, the illustration being on a reduced scale, a very pure rose-pink in colour, with delicate yellow markings on the lower segments. It is a very beautiful and distinct Gladiolus.

CAMPANULA CARPATICA WHITE STAR.

THIS was shown by Mr. Prichard, and is one of the most beautiful of the whole of the Bellflowers. It will be probably much grown in the future in the rock garden and in pots. The flowers are more than 2 inches across, of somewhat flattened shape, and white, in which there is a sus-

picion of a bluish shade and ring of mauve in the centre. It is a Campanula for all gardens.

NOTES ON HARDY PLANTS.

ANNUALS AT HOME.

I DO not think I ever realised what beautiful things annuals are until I saw them growing in large spaces and great masses as they do at Messrs. Sutton's Reading seed grounds. In herbaceous borders failure is too often the result of overcrowding, and the plant either perishes or produces flowers so small and meagre as to be practically worthless. Even the careful thinning which is rightly recommended is often of no avail, for some large herbaceous plant overshadows the smaller one and deprives it of the two most important factors, light and food. The *Tropæolum*, for instance, is used in most small gardens as a climber for decorating odd corners and for filling in flower-tubs, while the *Tom Thumb* varieties are useful border plants; but the beauty of a large mass of these flowers fairly took my breath away, so varied and so brilliant were the shades of orange, yellow, and cream, blending perfectly and intensified by the clear emerald green of their disc-like foliage. A faint perfume exhaled by the sun's rays, refreshing and pungent, greeted us as we bent over

the wonderful dazzling carpet of flowers. This clearly is the way to use the *Nasturtium* if you have a large garden. I could imagine a long bed or border of these flowers on a terrace set against the distant blue of the receding hills or belt of Firs.

Then perhaps the next combination was a long line of *Godetia*—miniature crimson and white—each plant perfect, and never a gap for 100 yards and more. Then a large plot of *Morning Star Chrysanthemum*, which Messrs. Sutton appear to think one of their most satisfactory annuals, and certainly they are justified in their supposition. What an excellent subject for cutting, too, is *burridgeanum*! It held its own in my estimation with its charming tricolor flowers; but the varieties of this annual are too numerous to mention, and many are most worthy of cultivation.

I was perfectly delighted, too, with a bed of the small *Queen of the Blues* (perennial *Delphinium*), which will fill charmingly many gaps in the front of your herbaceous borders left by the dying *Daffodil Grass*. It must be sown now for next summer. How, too, the race of *Candytufts* has improved! The old varieties were a bad-coloured purple and white, small and weedy; now we have carmine, crimson, lilac, and white, and such big spiral blossoms. They sow themselves every year, but I have noticed invariably deteriorate, so it is better to get fresh seed and pull up the old plants. Among the *Clarkias*, always old favourites of mine, I saw a large plot of *Salmon Queen*. She still apparently occupies the throne, but *Carnation-flaked Pink* runs her close, and the dwarf *Pink* is most useful for the front of the borders. Next year everyone should sow a supply of azure blue *Lobelia* for edging or massed patches of colour. It is a lovely little thing, and truly blue. *Phacelia campanularia* should be sown in the autumn, and so ought *Nemophila insignis*.

A visit to a great garden like these 100 acres in Berkshire is a wonderful lesson in cultivation, order, and enterprise, and with these beauty walks hand in hand. A great map marked out in glorious colours seems to be rolled out before you beneath the burning July sun. It proved to me that soil matters little, for these acres of beauty are dry and arid, and by art and perseverance are made to yield the most perfect flowers.

It is difficult to realise that these great seed gardens, and others like them, are in touch with the whole world; that many of these annuals forming this great colour map come from the *Antipodes*; and that many of the very Grasses we use for our velvet lawns are collected from every corner of the globe and accepted or rejected after long and careful trials. No subject is too small or too humble to be considered as a possible gift to our English gardens, and it is only necessary for a little foreign flower to have a certain beauty of her own to be enrolled among the finest denizens of our parterres or forcing houses. The little *Swan River Daisy* has equal rights with the gorgeous *Begonias* and *Cannas* that decorate the gardens of the wealthy, and so year by year, as our love of gardening steadily increases, these great firms meet us with their wonderful supplies of new and beautiful flowers, many of which are produced by cross-fertilisation, a process which may take years to perfect, and which also takes a great deal of time and quite as much brain power—and a most wonderful quantity of patience. The new annual which you will sow next year represents all this, and it is good to remember this little lesson when we in our gardens become disheartened with our failures and disappointments.

AUGUSTA DE LACY LACY.



GLADIOLUS LADY INCHQUIN.

(Shown by Messrs. Kelway and Son, Langport, at a meeting of the Royal Horticultural Society on the 1st inst., and given an award of merit. Reduced.)

PELARGONIUM ENDLICHERIANUM.

It would be difficult to find a summer-flowering rock plant so interesting as the hardy *Pelargonium*, well-flowered specimens of which are a great gain. It is a handsome and distinct-looking plant with succulent, semi-prostrate stems, leaves which differ from the florist's *Geranium* only in being smaller, and showy trusses of rose-coloured flowers in which the petals are all ascending, crimson veined, and persistent for a much longer period than usual with *Geraniums*. Grown on a warm rocky slope, or planted between boulders so that its stems could ramble in their own slow way, or planted under a wall in a warm corner where ample drainage help the plants to winter well, it cannot fail to succeed. It is only in veteran specimens that one finds the plant's true worth, then a sheaf of bloom poised over the grey-green leafage is indeed grand, and such veteran clumps remind one of what a little patient care and waiting can do for many plants hitherto untried, because considered difficult to manage, yet which will develop, on a slow but sure basis, into specimens that will be greatly treasured.

NIGELLA MISS JEKYLL.

AMONG several new annuals on trial the above has proved to be one of the best. The seed germinates freely in the open border, and the plant is stronger and quite as branching as the type. Its finely cut foliage and mossy involucre form a beautiful setting for the many-petalled flower. The colour has been variously described as *Cornflower blue*, and recently in *THE GARDEN*, by an Irish contributor, as deep violet-blue. Can it be that in the *Sister Isle*, where the grass is said to grow so green, this *Nigella*, not to be outdone, assumes the colour of the *Princess of Wales Violet*? Here, when the flowers first open, the petals are rather pale towards the base, but soon change to a clear full blue, similar to the blue of the *Cornflower* perhaps, but softer and more delicate, with the greenish shade of the old form eliminated.

J. COMBER.

The Gardens, Nymans, Crawley.

FLOWER GARDEN.

FOUR OF THIS YEAR'S SWEET PEAS.

GLADYS UNWIN, I think, stands well to the front for beauty and colour, many of the stems having four blooms upon them, and coupled with the profuseness of flowering, renders this Sweet Pea quite one of the foremost issued in 1905. Next may I class Mr. Henry Eckford's exquisite variety

BLACK MICHAEL, which is a deep claret or maroon, and of beautiful form. The standards are of a high-class type. It flowers well, and stands sun and rain.

DAVID WILLIAMSON, another beauty of fine colouring and size, which reminds me of Duke of Westminster, but grander both in form and in colour.

ROMOLO PIAZZANI, with its flowers of pale or deep azure blue, bids next year to be a very great addition. This year, I am sorry to say, mine have not all thrown well, and certainly not as well as *Scarlet Gem*, which has often had three flowers upon its stems.

CHARLES W. CROSBY.

Broome Hurst, Dorking.

GARDENING FOR BEGINNERS.

SIMPLE HINTS.

PROPAGATING NOTES.—The present time is a suitable one for propagating many things from cuttings, not only of what are termed bedding plants, but cuttings of Roses. Climbing plants, such as Ivies, Honeysuckles, &c., and choice evergreen shrubs will strike now in sandy soil under hand-lights or in a frame in a shady position, kept regularly in a moist condition.

Propagating Geraniums.—Cuttings of the ends of the shoots 4 inches long will strike now in pots, pans, or boxes in the open air. If pots are used, place the cuttings round the sides of 5-inch pots, fixed in the soil with firmness. The pots must have 2 inches of rough material in the bottom for drainage; broken bricks in small pieces will do, or anything similar may be used. On the drainage place a layer of moss or the rougher turfy part of the soil, and on this place the prepared soil, which may be equal parts of sandy loam and leaf-mould, with about a one-tenth part of sand added to keep it open and sweet. Press the soil in firmly, and place a layer of sand on the top half an inch thick. We generally get the requisite number of pots ready and give enough water with a rosed pot to settle the soil, and while the pots drain prepare the cuttings. There will not be much fear of damping when the pots are prepared in this way. The more foliage left on the cuttings, provided it can be kept from wilting, the sooner roots form, and to keep the leaves from drooping, except in the case of Geraniums, there must be a confined atmosphere, as foliage exposed to the drying influences of sunshine and a freely moving atmosphere must wilt and show signs of exhaustion. Geranium leaves are stiff, and there is not much evaporation from them. Even in the sunshine, unless very dry, they do not show signs of distress. All soft things, such as Heliotropes, Fuchsias, and Verbenas, should, if possible, be rooted in a cold frame, shaded, and kept close except for an hour or so early in the morning. In preparing the cuttings, cut just beneath a joint, removing the bottom pair of leaves. Do not overcrowd things; this leads to damping off, and one dead or decaying cutting spreads the disease, withers, and much mischief is done which ought to have been avoided.

Cuttings of Roses in limited numbers may be rooted in good-sized pots or boxes placed in a shady position, but not over-watered. The soil must, of course, be moist, but not continually saturated, or the bark will decay and turn black. Sand should be used freely in the compost and a layer on the surface, the whole possessing a reasonable degree of firmness. When a large number of cuttings are planted, a special bed should be prepared in a shady spot. Roses may do exposed, though when we have a frame to spare we use it for Teas, Hybrid Teas, and Chinas. The shoots taken from cuttings should be getting a bit firm, and, where possible, take them off with a heel of older wood, but for the most part the cuttings will be of the current year's growth and from 6 inches to 9 inches long. Single buds with 2 inches of wood below and 1 inch above may be used in very sandy stuff under glass. We have rooted cuttings of this kind in cocoa fibre refuse and sand in equal parts. The cocoa fibre was not very fresh, and was in a suitable condition to retain moisture. One of the causes of failure arises from the necessity for much watering, but with cocoa fibre very little water beyond a light sprinkling is required. All one has to do is to keep them shaded and close,

with a very light dewing over with a fine rose when the surface is dry. Under such conditions nearly every cutting will grow, and, as only strong buds are used, very strong growths are made. Of course, as soon as roots are formed the cuttings are potted up and plunged in a bed where there is a little warmth and shade for a few days till established.

Selecting the Cuttings.—Never propagate stock from an unhealthy plant. This principle holds good in everything, and as far as possible take the cuttings from the upper part of the plant, for there the greatest vigour will be found. Never use a blunt knife in making cuttings, as death often follows from a carelessly made wound, and always cut close to a joint. The joint or node should be left to form the base of the cutting.

The Violetta Pansies.—These are charming little flowers for the beginner, and much has been written about them by Mr. Crane in THE GARDEN. We draw attention particularly to one variety—the dainty Queen of the Year, which has flowers



PANSY QUEEN OF THE YEAR. (Natural size.)

of a soft mauve, and are represented as of natural size in the illustration. The growth is quite creeping, and the flowers are sent up in abundance on short, sturdy stems.

Pinks.—These are very choice garden flowers, and much valued by those who are unable to purchase glass frames or build greenhouses. Pinks may be grown in the garden of the cottager, and are so sweet and lovely that the wealthiest amateur should not lack a bed of them in the flower garden or a colony of plants in the pleasure grounds. To have Pinks in a high state of perfection, with perfect lacing, they ought to be grown on rich, deep, well-manured soil. This ought to be prepared at once, and much in the same way as for Carnations. I observed, when travelling in the North, that some of the growers layered the Pinks in the same way as Carnations. I never take the trouble to do this, but merely slip off the growths and plant them in a moist, shady place out of doors or under hand-glasses, as being safer if these are available. The plants should be ready to set out where they are to flower by the middle or end of September. The

earlier they are planted out, the better chance have they to stand the winter. When planted late, alternate frosts and thaws throw them out of the ground, to their serious injury. If the flowers are intended for exhibition, it is best to plant them together in a prepared bed or border. Plant them in rows about 9 inches asunder, and allow the same space between the plants. A light mulch of decayed manure should be spread over the surface of the ground, especially if the weather continues hot and dry. This admits of water being freely applied without causing a hard surface almost impervious to the air.—D.

Weeds in Walks and Courts.—Much time is wasted in weeding and hoeing walks, and at this season a broken-up gravel surface is exceedingly uncomfortable to walk upon. It is much better and cheaper to use weed killers, which should be used only in dry weather. The best time is during a dry spell in March or April, and one dressing applied annually will suffice. It may be applied now if the spring dressing was missed. May be obtained from any horticultural chemist.

Daffodils for Cutting.—For the spring season nothing in the way of hardy flowers lends itself so readily to, or is so amenable to, varied forms of floral arrangements as the extensive family of Daffodils, which may be planted now. From the time the earlier kinds expand their flowers whilst snow and frost are still occasionally seen, onwards until the spring has considerably advanced, they may be had, thus saving choicer flowers from under glass, or dispensing with them entirely. The intrinsic value of the Daffodil should recommend itself more and more for use in a cut state. Not only is the season a long one, but the diversity in form, colour, and size affords such a varied scope for one's ingenuity in arranging the blossoms in a cut state. The choicer kinds, as they become better known and more extensively grown, will undoubtedly be much sought after. For instance, there is that very beautiful variety sent out by Messrs. Barr and Son, and called Queen of Spain, of a graceful form of growth, with distinct sulphur-coloured flowers. Bicolor Horsfieldi is another beautiful sort, with its immense golden-yellow trumpet and white perianth, one of the finest and most stately of its section. This fine variety may be fairly called the king of Daffodils. Both Emperor and Empress are noble kinds, with their broad, strap-like foliage. Other choice kinds are Nelsoni major, Barri conspicuus, Princess Mary, with its immense silvery white perianth and spreading yellow crowns; Poeticus ornatus and the varieties of Leedsii. The list could be lengthened out almost indefinitely, but particular care should be taken so as to exclude the small or minor forms. Narcissus cyclamineus and N. minor are both little gems in their way; then there are N. Bulbocodium (in various shades) and N. nanus, somewhat after N. minor, but distinct therefrom. Without entering into the Polyanthus section as suited to pot culture, mention should be made of the Jonquils, which are well suited to accompany the foregoing. The large single Campernelle, the single sweet-scented and the Silver Jonquil are all excellent for cutting. In the cutting of Daffodils note should be taken of the fact that the flowers will develop well after they are cut. They may, therefore, be taken as the blossoms are expanding; this in some instances is an advantage, particularly where more than one bloom comes from the same bulb, for it thus relieves the same in good time. For arranging with Daffodil flowers as a foliage accompaniment there is nothing to surpass or

even equal their own leaves, some of which can easily be spared from the commoner kinds. Fresh green moss is a good addition in some cases, as, for instance, when sand is used in rather broad receptacles, or in smaller ones when the minor varieties are to be arranged, as they at all times should be, by themselves. Beware of overcrowding the flowers in any case; this, besides spoiling the effect, is utter waste. By changing the water every few days they will last much longer.

Lilium auratum.—The illustration represents *Lilium auratum*, reproduced from a photograph sent by Mr. Thomas Winkworth, The Gardens, Haughton Hall, Tarporley. One bulb is carrying three stems, with an aggregate number of twenty-three flowers. The bulb is in a 6-inch pot. It was grown last year in a similar-sized pot, but carried only one stem then.

The Fuchsia.—Few plants are prettier than the *Fuchsia*. It is a question whether the double kinds should be encouraged, and yet they have their admirers. If *Fuchsias* are to be grown from cuttings, and good big plants are required, the propagation should be effected early in the autumn by taking any nice soft young shoots as free from flower as they can be obtained, inserting them in sharp sandy soil and keeping them close and moist under a hand-light. If attended to and gently syringed or bedewed daily they will soon strike, and when rooted should be potted singly into small pots, and then stood in a frame where they can be shut up early in the afternoon to give them a start. During the winter they must be kept gently moving by standing them in a temperature of between 40° and 50°, and in spring should have an increase of 5° or 10°. As soon as the plants begin to grow freely it will be necessary to decide in what form they are to be trained, whether as bushes, pyramids, or standards, as in the last case they must have side shoots stopped close and be run up to the desired height with clean stems; but in stopping, the main leaves should not be taken off, as the loss of so much foliage weakens the plants.

To get nice *Symmetrical Heads*, all the shoots when they attain a length of 6 inches or so should have the points pinched out, and the same again till the plants get properly furnished. In starting with pyramids all side branches must be encouraged, and the leading shoot tied loosely and trained up a stake, but it is necessary to nip the head out after a plant gets from 1 foot to 18 inches high, or side shoots will not form. These will need stopping occasionally, and a fresh leader must be run up and again stopped and any requisite thinning done, so as to have the plant perfectly balanced and regular all round, and the same from base to summit, this forming a handsome specimen when the plant gets into bloom, and that without stakes or sticks, except just in the centres, as they are quite unnecessary in the training of *Fuchsias*.

Bush Plants are easy enough to grow and form, but they are not very desirable, as they do not show off their flowers so well as those of the shapes referred to unless they are elevated and brought more on a level with the eye by standing them on pedestals or suspending them in baskets. In cases where there are lofty conservatories or greenhouses to furnish, the latter is a good way of using *Fuchsias*, as in baskets they are very telling, especially those of a drooping or pendulous habit, of which there are many varieties, and they make a capital show. Others, again, are well adapted for growing as climbers up pillars or under rafters, and when so used they produce a most striking effect in a house.

Cauliflowers for Spring.—Sow in open border thinly in drills. If the ground is very dry, moisten the drills and sow on the damp soil. Cover with the dry soil from the side of the drills.



LILIUM AURATUM.

The Early Erfurt and Late Asiatic are good varieties. Early London used to be grown a good deal, but there appears now to be a difficulty in getting it true. Cauliflower seeds are mostly grown on the Continent, and the varieties may have got mixed up. Make two sowings, the first about August 20 and the last about the end of the month. Veitch's Forcing is a good early sort, and Autumn Giant is a good late one. Walcheren is hardly so true and good as it used to be. When true it is excellent for late summer and autumn. Seeds of any of the above may be sown in a frame in September, and again under glass in February in heat.

GARDENING OF THE WEEK.

FLOWER GARDEN.

CARNATION LAYERING should be completed without further delay, or the young plants will not be sufficiently rooted to pass safely through the winter. If stock of any variety is limited, growths that could not conveniently be brought down for layering may be inserted as cuttings. With due care a fair percentage will strike, although rather late in the season.

SUMMER-BEDDING PLANTS generally may be propagated as cuttings become available. It is yet early for many. By no means allow *Begonias* to become dry at the roots, but water freely and copiously should dry weather prevail. A batch of cuttings of fibrous-rooted *Begonias* might be put in. They are easily rooted and wintered, but personally I prefer seedlings. Tuberous-rooted varieties should be gone over, selecting and marking those intended for seeding next year, so that at lifting time they can be put aside for the purpose, to be either grown in pots, pits, or frames, or in a sunny spot by themselves to produce seed. Pick off any ripe pods of the best sorts, dry and clean and put safely away, adding to it as opportunity occurs. At the end of the season it should be wrapped in tissue paper and stored in air-tight tin boxes until sowing time. Attend to

STAKING bulbous and herbaceous plants, and tie up as the flower-stems advance. Many of the latter class will need copious waterings and feeding, either with liquid farmyard manure water or frequent, though light, sprinklings of a reliable fertiliser, for specimens or clumps carrying many and heavy heads of blooms and ample foliage are

very exhaustive, and unless freely assisted in this way they will suffer, and some probably collapse, at this critical period. Unless seed saving is aimed at, promptly cut off all spent flower-stalks; in most cases it will be the means of prolonging the blooming season considerably. At the same time, if a plant shows a desirable advance over its fellows, reserve it for seed bearing. It is this kind of selection that helps to keep the strain up to its standard. **SELECTED POLYANTHUSES** which were reserved for seed bearing, and from which the crop has been harvested, can now be lifted, divided, and replanted in rich soil in the reserve ground. They will make useful stuff for filling up beds for winter and spring flowering. The main flowering of

NYMPHEAS being now over, dead flowers and yellow leaves should be pulled out, and weeds, if any, cleared away. Look over

CLIMBERS ON WALLS periodically, thinning out the growths where crowded and loosely tying in long straggling shoots. See also that rampant growers do not encroach and smother the less robust and rare, for it would be a sad mistake to hide and ruin the few shrubs that are now in bloom, such as *Eucryphia pinnatifolia*, *Cassia corymbosa*, *Berberidopsis corallina*, *Cesalpinia japonica*, *Desfontanea spinosa*, *Myrtles*, *Indigofera*, *Ceanothuses*, *Abelias*, &c., as well as *Carpenteria californica*, *Choisya ternata*, lemon-scented *Verbena*, and others which are but just over. Unfortunately, there are not many choice shrubs in bloom at this season.

CORRECTION.—An error occurs in my notes of the 12th inst. In giving convenient sizes of *Geranium* and other propagating boxes, instead of being 6 inches wide it should read 9 inches. J. ROBERTS.

The Gardens, Tan-y-bwlch, North Wales.

INDOOR GARDEN.

PERSIAN CYCLAMENS.—Make a sowing of these useful winter-flowering plants. Shallow, well-drained pans are preferable to pots for sowing them in. Use a compost of equal parts sifted loam and leaf-mould, a little mortar rubble, and coarse silver sand. Place the rough siftings over the drainage, fill the pans to within 1 inch of the top with soil, and press moderately firm. Dibble the seeds in about half an inch apart and one-eighth of an inch deep. Place the pans in a house with a night temperature of 60° to 65° Fahr., and cover with a sheet of glass and paper. When the seedlings begin to germinate remove the paper and place close to the roof glass. Gradually admit air by tilting the sheet of glass till eventually it can be dispensed with altogether. If a quantity are grown, sowings can be made at intervals from now till November for succession. The plants in the frames which are full of roots can be assisted with a little manure water once or twice a week. Remove the lights at night during favourable weather.

MALMAISON CARNATIONS.—Sever the rooted layers 1 inch or so beyond where the roots are growing. This piece of the old stem is useful to help support the plant till it is rooting freely. Pot up the layers into 4-inch pots, using a compost of three parts turfy loam and one of leaf-mould and decayed manure, adding plenty of sand. Stand in a frame, keeping rather close and shaded from the sun for a few days. Air can then be given freely, eventually removing the lights altogether, except during bad weather. For cool greenhouse decoration in spring *Pinks* are not grown in pots as much as they deserve. The perfume from the flowers in the house is very pleasing. The variety *Mrs. Sinkins* is especially useful. Select some of the stronger-rooted cuttings and pot up singly into 5-inch or three in a 6-inch pot.

CRASSULA COCCINEA, perhaps better known under the name of *Kalosanthes*. This old-fashioned plant can usually be depended on for a good display of flowers. Cut back the plants after flowering, and stand outside for a few weeks. The growths which have not flowered may be inserted as cuttings about 3 inches in length and four or five in a 5-inch pot. Give good drainage, and have plenty of mortar rubble in the soil. Place on a shelf in a house with a dry atmosphere. Very little water will be needed during the winter.

GENERAL REMARKS.—To obtain the maximum amount of flower from the plants, and to winter others successfully, it is necessary that the growths be well matured. The blinds should be used as little as possible from now onwards, the plants being given as much light as possible. Winter-flowering plants in the frames can have the lights removed altogether during favourable weather. Assist with manure water *Bouvardias*, *Salvias*, *Reinwardtias*, *Peristrophe*, &c. The double *Primulas* propagated by division may be potted on into 5-inch or 6-inch pots, placed in a pit or frame near the glass, and kept close for a few days. Dew over several times daily with the syringe. Remove all the flower-spikes which appear for the next five or six weeks. *Achimenes* as they cease flowering can be placed in a frame in a sunny position, gradually withholding water.

Royal Botanic Gardens, Kew.

A. OSBORN.

FRUIT GARDEN.

POT VINES.—These are now showing signs of ripening, and the supply of moisture both at the roots and in the atmosphere should be gradually diminished. Admit abundance of air during the day and a fair amount at night, gradually hardening the canes so that they may eventually be placed outdoors in a sunny position, where they will finish more perfectly. The early permanent vines which are to be started in November may now be half-pruned. Keep the house as cool as possible by throwing the ventilators wide open. If the roof lights can be easily removed, so much the better. This will tend to keep growth inactive, allowing the final pruning to be

done at the proper time, which should be at least a month before closing the house.

PEACHES AND NECTARINES.—Trees which have given unsatisfactory crops will need renovating. The present is a suitable time to carry out this work, which is simply replacing the old soil with new. This may be done to within a few feet of the stems without any fear for the results, provided it is carried out carefully and expeditiously. Most of the roots may be cut well back, preserving only the large main ones, and these may be cut to a convenient length. It is very important that the borders be well drained, and a good drainage is formed by placing a layer of bricks on edge at the bottom. Over this throw a quantity of broken brickbats to the depth of 4 inches. To keep this clean a layer of freshly-dug sods should be placed over it, grass side downwards. The new soil should be mixed ready for use. Use plenty of old mortar rubble and charred soil with loam of a rich nature, avoiding artificial manure unless the soil is poor. Make sure this is rammed quite firm as the work proceeds. When all is finished, give the trees a good watering and make free use of the syringe during hot weather.

OUTDOOR TREES.—Early varieties of Peaches and Nectarines have been exceptionally good this season, both in colour and flavour. As soon as the crops have been cleared the trees should receive a good washing with the garden engine, using an insecticide if necessary. Make sure the roots are well supplied with moisture. Attention must be directed to the growth which is to bear next season's crop. If the young shoots are inclined to be crowded, some of the old fruiting wood may be cut out. Late varieties must be encouraged to mature their crops perfectly. Any leaves which are shading the fruit must be drawn to one side, so that they may have full benefit of the sun, which is essential to high colour and flavour.

EARLY APPLES AND PEARS. Much care will be needed in gathering early varieties of Apples and Pears if they are to be placed on the table in the best condition. They must not be gathered too soon or they will be insipid, and they will not improve by keeping. It is far better to leave them on the trees till they are quite ripe, and use them at once. On the other hand, they must not be left too long, as early varieties quickly become mealy, and if placed on the table in this condition may cause disappointment. E. HARRIS.

Fruit Department, Royal Gardens, Windsor.

ORCHIDS.

DENDRBIUMS AND SEMI-DENDRBIUMS.—As many of these are completing their season's growth, the plants should be given very occasionally selecting those that have finished making their growths and have the terminal leaf at the extremity of the bulbs expanded. Such plants should be placed together at one end of the house, where they may be more conveniently exposed to almost full sunshine, and where plenty of air can be admitted and less moisture afforded them, so as to fully consolidate and thoroughly bring the newly-made growths to maturity. Care must be taken that these plants are not allowed to become too dry at the root for long together or the growths will receive a check, which will cause them to flush up prematurely and immediately afterwards to start into growth again, and the plants are considerably weakened. It is not always advisable to remove these Dendrobiums direct from the growing house into their winter quarters immediately growth is completed, because just about the finishing period many of the roots become active. These, together with careful watering and ventilation, will assist to build up strong pseudo-bulbs, which will be able to bear unimpaired the strain of flowering. In about a fortnight's time the new buds will be fully developed. The plants should then be removed to where they will be far less shaded and where the atmosphere is drier and less close. No better place can be selected than the ordinary cool greenhouse or vinery from which the Grapes have been gathered, taking care to select a position where the plants will be free from draughts or cold winds. As these plants are placed in their proper resting quarters others that are later in finishing their growth should be gradually inured to the same treatment. It seldom happens that all the plants are ready for removal at the same time, which is an advantage to the grower, as he is easily able to prolong the flowering season. Where the Dendrobiums have a house to themselves, and they consist principally of those of the D. nobile, D. Ainsworthii, D. splendens, D. grandiflorum, D. melanochrysum, and D. Wiganianum sections, there is no need for removal to other houses, as the heat may be gradually turned off, the amount of ventilation increased, and the shading lessened as the season advances. During the next two months

NEAR CAREFUL WATERING is necessary, as the plants being exposed to the sun's rays and through the more arid atmosphere the sphagnum moss on the surface of the compost appears to get dry very quickly, when underneath it is the reverse, and if the plants are watered again the next day the roots are thus kept in a constantly saturated condition and will soon decay. The plants then instead of remaining plump, will commence to shrivel, not from the want of water, as is generally supposed, but from loss of roots. The best guide that I have found is to carefully watch the pseudo-bulbs, and immediately any shrivelling is detected give the plants a thorough watering, but they must receive no more water until the whole compost has become dry. In my calendar for June I advised various experiments to try and find out the proper cultivation of D. Wiganianum, and I may mention that at Burford we have tried plants in different temperatures and in various positions. Undoubtedly the best grown plants are those which have been suspended close to the roof ventilator. This was always more or less open, and the house was

but a trifle warmer than that of the Odontoglossum house. These plants have now completed their growth, and will at once be taken into a cool house, where they will be exposed to more sunshine and a drier atmosphere, so that the ripening process may be thoroughly accomplished.

There are still many plants of the deciduous and evergreen section that are only half-way through their season's growth. These should receive every encouragement as regards heat and moisture until growth is finished. Those of the nigr-hirsute section, as D. Jamesianum, D. infundibulon, D. jerdonianum, D. wattianum, D. eburneum, D. Longicornu, D. cariniferum, &c., do not require so much exposure to sunshine as the deciduous and semi-deciduous kinds. They prefer a shady position at all times, and when not growing will require less water than at other times, but a thorough drying off at the root is detrimental to them. W. H. WHITE.

Burford Gardens, Dorking.

KITCHEN GARDEN.

POTATOES.—As every square yard of ground is required at this date for planting out vegetables, salad, &c., let Potato tubers be lifted and stored for future use. Should the varieties lifted at this time be satisfactory, those tubers of a suitable size may be selected, dried, greened, and safely housed for seed next year. So far I have neither heard of nor seen any disease, but this being a malady that spreads with great rapidity, the danger will be lessened if ripe Potatoes are lifted instead of being left in the soil. Then the ground can be occupied with Kale or Broccoli for cutting next April and onwards, also young Cabbage plants of the Winningstadt and Colewort type. All these if carefully planted out will prove extremely useful at a time when outdoor supplies are none too plentiful. Other vegetables of the same family must also receive due attention by frequent surface stirrings with the Dutch hoe, as well as water given to those recently planted out, thus allowing sufficient moisture to excite root-action as soon as possible. Young Turnips, Lettuce, and Endive all require similar attention. Delay in thinning, thereby allowing the surface of the soil to become caked and hard, means loss of time and unsatisfactory results.

TOMATOES.—The fruits of these most useful plants have been an unqualified success this season so far, and now that the soil in which they were planted is becoming exhausted, they require occasional doses of liquid manure after the soil has been well moistened with pure water. A little soot at times is very beneficial in assisting to keep the plants in a healthy condition. The action is extremely quick, judging by the fine green hue the foliage takes on very soon after application. Guano and nitrate of soda are also excellent stimulants for the Tomato, though great care is necessary in giving them. Small quantities applied frequently are preferable to larger doses at longer intervals. If this is strictly adhered to, and no approach to dryness allowed near the roots, there will be no danger, whereas the opposite may lead to disastrous results.

ASPARAGUS requires careful treatment at this time in the way of supporting the grass to prevent injury by wind. Excellent Asparagus crowns are sometimes destroyed by the grass being broken over before it is ripe. Old Pea-roses answer well for keeping the grass in an upright position till it has performed its functions. Occasional doses of liquid manure at this period go a long way to stimulate and plump up the crowns for another year's crop.

SEAKALE crowns planted in the spring are growing rapidly at present, and the surroundings should be frequently stirred with the Dutch hoe, so that the plants may receive the full benefit of the sun's rays and showers when they prevail. Seakale plants are also lovers of stimulants when in full growth, and these may be applied in considerable strength if the ground is moist without the least injury. On no account should the Seakale plot be allowed to become in the least dry. Plenty of moisture and sunshine are essential in ripening and plumping up the crowns, so that the foliage may fall from them at as early a date as possible. J. JEFFREY.

The Gardens, St. Mary's Isle, Kirkcudbright.

ROSE GARDEN.

BUDGING should now be brought to a close, although if there are any Manetti stocks to bud these will still "run well," i.e., the sap is flowing freely. Unless this be so in all stocks, budding is useless. Sometimes Briars will dry up quite early. Where this is the case, give them a good soaking with water and defer budding for a few days. The

EARLY BUDGING should be examined and the ties removed before they cut into the bark. Do not cut away any of the growths of the stocks, save suckers, until next February.

SUCKERS upon Rose plants should be removed immediately they are detected. They act the part of robbers to our Roses and should not be tolerated. Often, owing to the similarity in growth, the wild shoots of the de la Grifferaie stock will grow together with rambler Roses and be undetected for some time. I have seen walls covered with this stock, which bears a rosy pink cluster of blossoms, and is not at all a bad Rose, only that it usurps the strength that should be given by the roots to the Rose proper. Where such suckers exist a bud of the same variety as the Rose could be inserted at the base of the sucker, which would tend to strengthen the cultivated variety another season. Of course, the sucker could be cut back to the inserted bud next spring.

RE SEED should be cut off all plants, unless it be desired to raise a few seedlings; but as a rule seed from self-fertilised flowers rarely produces anything better than the existing sorts. Roses suffer in common with other shrubs when the seed-pods are allowed to mature. They should

therefore be removed immediately the blossom has given us its beauty.

OLD BLOOMS should be removed from all Roses daily if possible; one or two faded blossoms completely mar a fine cluster. I have especially noticed this with Dorothy Perkins this year. A handy lad with a pair of scissors would soon do the work. Everything points to a glorious

AUTUMN BLOOMING of the Roses, and those who selected wisely with a display at that season mainly in view will soon reap reward for their labour. It is a good plan to allow the plants a partial rest after the first blossoming—that is, as far as one can do so—but to a great extent we must depend on the weather. If August be dry, so much the better. As soon as the plants begin to send up those fine red shoots again, water should be liberally given, and, moreover, continued when the weather is dry, so that there be no check to the new growth. Liquid manure is also helpful, but must be applied in moderation. There is one great drawback to the late displays, and that is our plants are in rather a soft condition should severe weather appear early. Personally, I should remove all bloom from my plants after the middle of October, so as to assist the growth to harden, but I know many prefer to take the risk and allow the plants to blossom to their utmost. Danger from loss by frost to such plants can be avoided if they are lifted in November and heeled in under a north wall until March or April, then replanted, cutting back all the shoots to within an inch or so of the base.

HOKING must be well attended to in order that a good tilth may be obtained at all times.

ESTABLISHED ROSES planted out under glass must still be resting. This thorough baking of the wood will so ripen it that far better displays of bloom will be obtained next season. Never mind if the soil cracks a little. This can all be put right when growth is commenced again. In the growing house vaporising with sulphur is necessary once a fortnight. Mildew is then completely baffled, and red spider held in abeyance. The green fly may be checked by timely fumigations. Syringing must not be neglected, and in no branch of horticulture is a young man's care or neglect of his work so manifest as when he allows red spider to enter the houses under his charge. If small plants in 5-inch pots are potted on now into 6-inch pots in good rich soil, they make nice serviceable plants to bloom next spring.

CUTTINGS that were put into pots in a cold frame early in August will be now callused over, and where this is so they should be placed in a house or frame where bottom-heat can be applied, and when rooted potted up into 3-inch pots. Such little plants if carefully carried through the winter will make grand own-root plants another season. Most of the Tea and kindred Roses may be freely propagated in this way.

ORANGE FENGES AND BLACK SPOT have been especially troublesome this year. Where plants are growing away unchecked in good deep beds there appears to be very little of these pests. Wherever it is very bad I would advise deepening the beds, of course replanting if bushes are healthy. This work can best be done at the end of October; 3 feet deep is none too much for a Rose bush in the seedling Briar, the most generally used stock. The best preventive for orange rust is Bordeaux mixture applied quite early with a very fine syringe, or, better still, with a Vermorel Knapsack Sprayer. I would advise the growing of more of the Tea and Hybrid Tea Roses in gardens much troubled with orange rust. F.

BOOKS.

The Book of Garden Design.*—

This being Vol. XXV. of a series of handbooks of practical gardening, it may be excused for not going very deeply into the subject. There is good sense in Chapter II, "General Principles"; indeed, much of it may be of use, but the whole book is slightly colourless, and reflects a publisher's desire to include such a book in a series rather than an author's response to a want felt by the gardening public.

The Vegetable Garden.†—

The English edition of this book, published under the direction of Mr. William Robinson, is a most valuable work, and stands pre-eminent among books on the subject of vegetables. It contains illustrations, descriptions, and cultural notes of the garden vegetables of cold and temperate climates. The arrangement is alphabetical, so that it is a simple matter to find any particular plant. First is given the botanical name and synonyms of the vegetable, then follow its French, German, Flemish, Dutch, Italian, Spanish, and Portuguese names, a full description of the plant, and short cultural notes. The various uses of each vegetable are also given.

* "The Book of Garden Design." By Charles Thonger. (John Lane.)

† "The Vegetable Garden." By MM. Vilmorin, Andreux et Cie, Paris. English edition published under the direction of Mr. William Robinson by John Murray, Albemarle Street, W. Price 15s. net.

When treating of such important kinds as Potato, Cauliflower, &c., a list of the best varieties is given. Messrs. Vilmorin, Andrieux and Co., Paris, the authors of this work, have bestowed much attention on the seed. The external character is carefully noted, and the actual size and relative weight are stated as precisely as possible. Some valuable information is given as to the length of time the germinating power of the seed of each species may be relied upon to continue active. The figures given, of course, only represent an average, for the keeping power of seeds very largely depends upon the manner in which they were ripened and harvested. Mr. Robinson contributes a preface, in which he deplors the absence of the more delicate and nutritious vegetables from British gardens, which are often neglected in favour of the coarser kinds. Mr. Robinson urges all who have gardens to fight against the deterioration of some of our best vegetables, which is imminent owing to the mania for size. Flavour is often their essential quality, and a change in size by adding to the watery tissue may destroy it. "The Vegetable Garden" is a complete and authoritative work upon all that concerns vegetables, and stands unique among books on the subject. It should be on the bookshelf of every one interested in vegetables, for it is not a book for the grower alone.

John Gerarde's Herbal.—Messrs. Methuen's success in publishing a reproduction of Parkinson's "Paradisi in Sole Paradisus Terrestris" last year has decided them to take into consideration a proposal to issue a fac-simile of "Gerarde's Herbal." The edition is that of 1597, and it will be published subject to the subscription list reaching the required number. If this is forthcoming, Messrs. Methuen propose to reproduce word for word and page for page with the original, Gerarde's great book at the price of £3 3s. net. On the day of publication the price will be raised to £4 4s.

Flora and Sylva.—The July number of *Flora and Sylva* contains much instructive and interesting matter. It opens with a charming article on "In Lilac Time," which we intend to reproduce, and the article on "The Greater Trees of the Northern Forest" includes this time the Sycamore Maple, accompanied by a beautiful engraving of the trees at Penshurst, Kent. Mr. Crane tells us about the *Violetta Pansies* he is so greatly interested in, and there is a valuable article on new American Hawthorns. There is an illustration of the new yellow *Meconopsis* (*M. integrifolia*), and many other articles and notes. The coloured plates are both by Mr. H. G. Moon, and comprise an exquisite drawing of *Zygoneia rolfeana*, and the new *Narcissi* Lord Kitchener, Dewdrop, The Fawn, and Sunbeam.

LEGAL POINTS.

MALE SERVANTS (Perplexed).—These cannot be kept without a yearly licence—cost, 15s., to be obtained at the post office. Licences must be obtained before the end of January, or within twenty-one days after first becoming liable to duty. The term male servant includes any male servant employed in any of the following capacities, viz., as maitre d'hotel, house steward, master of the horse, groom of the chambers, valet de chambre, butler, under-butler, clerk of the kitchen, confectioner, cook, house porter, footman, page, waiter, coachman, groom, postilion, stable-boy, or helper in the stables, motor-car driver, gardener, under-gardener, park-keeper, game-keeper, under-gamekeeper, huntsman, and whipper-in, or in any capacity involving the duties of any of the above description of servants; but the term male servant does not include (a) a servant who being *bona fide* employed in some other capacity, is occasionally or partially employed in any of the said duties. This exemption applies to persons who, being

engaged and employed by one master, perform non-taxable work as their substantial employment and taxable work in a minor degree only, as, for instance, apprentices who clean boots, or farm servants who are occasionally employed in grooming horses; (b) a person *bona fide* engaged to serve for a portion only of each day and who does not reside in his employer's house. This exemption does not apply to those who serve in a taxable capacity for such number of hours daily as suffices for the performance of a fair day's work. Licences are not required—(1) By any officer in his Majesty's army or navy for any servant employed in accordance with the regulations of his Majesty's service. (2) By any hotel-keeper, or refreshment housekeeper, for any servant wholly employed by him for the purposes of his business. (3) By any livery stable keeper, but duty must be paid for every servant employed to drive a carriage with any horse let for hire for any period exceeding twenty-eight days.

AS TO STORAGE OF PETROLEUM FOR MOTOR-CARS (J. J., Tunbridge Wells).—Not more than 60 gallons may be stored at any one time. No portion of the storehouse may be used as a dwelling. Any person who proposes to keep petroleum in a storehouse within 20 feet of any other building not owned by him, or of any inflammable material, must give notice to the local authority for the district under the Petroleum Acts, who may give or refuse their consent. In London notice must be given to the London County Council, Spring Gardens. Petroleum must not be kept, used, or conveyed except in metal vessels. Every such vessel must bear the words "Petroleum spirit, highly inflammable," and must not hold more than 2 gallons. The vessel must not be filled in the presence of fire or artificial light except a light of such construction as will not be liable to ignite any inflammable vapour. You had better get a copy of the Local Government Board regulations relating to motor-cars. Every owner of a motor should possess one.

BUILDING CONTRACT (An Anxious Novice).—Building contracts should always be in writing. Disputes arise in connexion with most building contracts, and in the long run expense is saved by having a proper contract prepared in the first instance. The terms of a building contract should not conflict with the terms of the specification or application for tenders. Building contracts should provide: (1) As to the manner in which the work is to be done. (2) As to the time within which it is to be done. Building contracts usually provide that the builder shall pay a certain sum per day or week by way of liquidated damages if the work is not completed within the stipulated period. A builder is usually entitled to a time allowance in the case of strikes, lock-outs, inclement weather, or default on the part of the employer. (3) As to the mode of payment. Building contracts usually provide that payment shall be made on the architect's certificates as to the progress of the works, and that the giving of such a certificate is to be a condition precedent to the builder's right to demand payment. (4) That the builder shall comply with the requirements of all local authorities. (5) That he shall indemnify the employer against any claims by workmen or others for damages. (6) As to the conditions under which extras and deviations are to be allowed. Building contracts usually provide that no extras or deviations shall be allowed except with the consent in writing of the architect. If the builder supplies extras without the authority of the employer or the architect (in cases where the latter has power to authorise extras) he cannot recover. (7) That certain disputes shall be referred to the final decision of the architect. (8) That all other disputes shall be referred to arbitration. The form of contract which has been agreed upon between the Master Builders' Association and the Royal Institute of British Architects is sufficient in most cases. Printed copies can be obtained at the institute on payment.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR of THE GARDEN, 35, Tottenham Street, Covent Garden, W.C. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

Legal Points.—We are prepared to answer questions of law which have anything to do with the subject of gardening and forestry. The questions should be as clear and explicit as possible, so that there can be no doubt as to the point of the question. Answers will be found in a separate column headed "Legal Points."

FIG TREES DROPPING THEIR FRUIT (G. T.).—The immediate cause of the fruit dropping is undoubtedly the non-fertility of the seed. This is at once apparent on opening the fruit, as not a seed is properly formed, and without seed fertility the fruit cannot swell, and hence drops off the tree, as in your case. As a preventive in the future, we should advise you at once to look over the tree and satisfy yourself that it is not crowded with useless leaves and branches. Should this be the case, have as many of the weakest shoots cut out as will admit more air, light, and room to the stronger ones left behind. Keep the tree growing freely by syringing, watering, and closing up with a temperature of from 80° to 85° on warm afternoons for another month, after which time a cooler and drier air must be provided until the leaves have fallen and the tree is at rest. Some time in October or early in November take off from 4 inches to 6 inches of the surface soil of the border—in fact, until you come to a good body of roots—give the tree a good soaking of manure water two or three times over, and as soon as the surface of the border is again dry, give it a top-dressing, 5 inches deep, of the best soil you can procure, with which has been previously mixed half a hundred weight of quarter-inch bones and the same of old mortar and lime rubble to the cart-load. The Fig is a gross feeder when in active growth, therefore it must be well fed at this time. Top-dress with a layer of fresh horse-droppings, and give frequent waterings with weak manure water. Under this treatment we have generally secured two good crops in the course of every year for many years past.

MAKING A VINE BORDER (C. F.).—Make the border 3 feet deep and for the first year not more than 4 feet wide. It is far more satisfactory to have the border narrow at first, and to add more fresh material year by year, than to make up a large border all at once. If the sub-soil is known to be damp and heavy you ought to place drain-pipes at the bottom of the border, 2 feet or 3 feet apart, sloping towards the front of the vinery. If, however, the sub-soil is gravelly no drain-pipes are necessary. Carefully cover the drain-pipes with large stones to prevent their breaking. Place 9 inches of brick rubble at the bottom of the border. This makes an excellent drainage. Place a row of whole turves over the drainage to prevent the latter from becoming blocked with fine soil. Then fill the remaining space with a compost prepared beforehand as follows: With a spade chop up turves each into about four pieces; this should form the bulk, nothing is better than turfy loam. To each cart-load of turf add one hundred-weight of quarter-inch bones, two barrow-loads of old broken bricks and mortar rubble, one bushel of quicklime, a barrow-load of road

scrapings, and some wood ashes. Mix these ingredients thoroughly. On the outer edge of the border build a wall of turves as high as the border will be when completed. Within the turf wall there will be a space of about 3 feet to fill with soil. Have a path 3 feet wide made of large flag-stones. Five cart-loads of turf ought to be sufficient. We should prefer to grow *Smilax* or *Asparagus Fern* on the back wall. *Eucharis* would grow well if you made up a good border for them. Plant in October before all the leaves have fallen, 3 feet apart. Good varieties are Black Hamburg and Foster's Seedling (white). Alicante is an excellent late Grape. Madresfield Court and Muscat of Alexandria are splendid Grapes, but require a higher temperature than most others. As you have only the one house we should advise you to grow the two first-named only, and not to mix late and early sorts together.

LEAVES SHRIVELLING ON APPLE TREE (*J. G. C.*).—We think that the leaves of your Apple tree were attacked by red spider, from which Apple trees often suffer much in hot and dry weather. The best thing to do now will be to give the tree a good syringing night and morning for a couple of days with an emulsion of soft soap and sulphur, made as follows: 2lb. soft soap dissolved in four gallons of warm rain water, adding $\frac{1}{4}$ lb. of dissolved flowers of sulphur. This application, if forcibly and thoroughly applied by a pump or syringe, should clear the tree of this insect. Owing to the weather having recently been so hot and dry, the tree is also probably suffering from dryness at the root. In any case, a good soaking of water will do it good, and it should also have a layer of manure, about 3 inches deep, laid over its roots as far as you think they extend. This will prevent too rapid evaporation, and help to keep the roots cool and moist. After this treatment the tree should in good time make another growth, and probably give a good return of fruit next year.

PEA PODS DISEASED (*R. M.*).—The damage to your Pea pods has been caused by a fungus known as the Pea and Bean rust. It eats into the pods, destroying them and the Peas also, and it often attacks the haulm as well. It seldom affects the Peas in early summer, but is common later in the season, when the weather is drier and the heat greater. The best thing to do to prevent its attack is to plant your mid-season Peas in well-manured trenches as for Celery, placing 3 inches of soil over a depth of 6 inches of manure in the trench, sowing the Peas thinly in this soil (3 inches apart). When the young Peas have attained the height of 15 inches, a layer of manure, about 2 inches thick, should be laid over the roots as a mulch. This keeps the soil cool and moist underneath, and the roots are nourished by the ammonia washed down to them by the rain. As soon as the young pods are fully formed a good soaking of water should be given once a week in dry weather until the crop is over. By adopting this plan heavy crops are possible even in the hottest weather. Some sorts are better able to stand hot and dry weather than others. Amongst the best are the Duke of York, Prizewinner, and Daisy.

ARTIFICIAL MANURE FOR VEGETABLES (*D. M. R., Bournemouth*).—In using artificial manures you require to be guided by the soil, if heavy or light, and a great deal depends upon the kind of crop; for instance, you could not with advantage use such manure at this season upon a crop in full growth, or shall we say finishing. It is best, as a rule, to give compounds of potash and phosphoric acid in the autumn and nitrates and ammoniacal manures in spring. Such plants as Beans and Peas do not require much nitrogen, but are greatly benefited by phosphates and potash. Cabbage, Turnips, and Lettuce require nitrogen in addition to the other food. You may give these freely at the rate of 2cwt. per acre in

the autumn, and a spring dressing in addition. There are now special vegetable foods in the shape of prepared artificial manures for certain crops. All leading horticultural seedsmen and sundriesmen will supply them, and give you cost of each, which is quite reasonable. Such food as British guano is a safe and good vegetable food, but by all means secure your manure from a good firm, as there are some poor samples on the market. The cheapest is by no means the best.

BULBS (*B. T. F.*).—You can grow *Fritillarias* well in pans containing 3 inches of soil, one bulb to the square inch of the surface, and *Crocuses*, *Eranthis*, *Galanthus*, and *Hyacinthus azureus* similarly. *Erythroniums*, *Sternbergias*, and bulbous *Irises* thrive best when grown in pots. Six *Erythroniums* will suffice for a 6-inch pot, three or five bulbous *Irises*. *Sternbergias* will require more room, their bulbs resemble those of large *Narcissi*, and five bulbs for an 8-inch pot will suffice. Plunge them all in the open for several weeks after potting to enable the bulbs to root thoroughly before they flower.

PLANTING GARDEN (*E. C. A.*).—Plant the following climbing Roses: *Dorothy Perkins* (pink), *Lady Gay* (deepest pink), *Mme. Alfred Carrière* (the best white climbing Rose), *Claire Jacquier* (buff), *Alberic Barbier* (palest yellow), *Wallflower* (rich rose), *Crimson Rambler*, *Mme. D'Arley* (white), *Helene* (light pink). Of dwarf Roses you should add *Mme. Jules Grolez*, *Hugh Dickson*, *Cléo*, *Corallina*, *Gladys Harkness*, *Duke of Edinburgh*. To your Sweet Peas add *Florence Molyneux*, *Janet Scott*, *Miss Willmott* (one of the very best), *Scarlet Gem*, *Mrs. Walter Wright*, *Romolo Piazani*. *Violas*: *Kitty Bell* (pale mauve), *The Mearns* (purple), *Mrs. Cave* (yellow), and *Blue Diamond* are good sorts. Get *Cactus Dahlias Fair Maid* (delicate pink), *Althea* (crimson), *Meg Merrilies* (yellow), *Queen Mary* (pure white). Why not grow a few of the single varieties, which are very beautiful? *Eugene Danzanvilliers* (a beautiful lilac variety), *Mrs. Jenkins* (white), and *Coquelicot* (scarlet) are three of the best perennial *Phloxes*. Add to your list of perennials, *Lobelia cardinalis* *Queen Victoria* (buy plants in spring), *Campanula trachelium* (plant in autumn), *Lilium croceum*, *L. candidum*, *L. speciosum* varieties and other *Lilies* (plant early autumn), *Anemone japonica* (plant autumn), *Michaelmas Daisies* (plant autumn). You should grow the following varieties of border *Carnations*: *George Maquay* (white), *Isinglass* and *Quentin Durward* (scarlet), *Mrs. Nicholson* and *Francis Wellesley* (pink), *Uriah Pike* and *Old Clove* (maroon).

ROSE BUSHES NOT FLOWERING (*H. M.*).—We could have helped you better had you furnished us with the names of the Roses; but perhaps you do not know them. It is now rather late to peg down the shoots, although if they belong to the climbing Tea section they would send out some bloom in September. Probably the plants have been over-pruned. It is a great mistake to cut hard back these shy-blooming Roses, for they merely make wood again, whereas if growths are retained some 2 feet to 3 feet long at pruning time, whatever the class, there will in most cases be some blossom. Why not treat these Roses as pillar Roses? Place a good stout stake against each and tie the growths to the stake. Next spring prune very moderately, and you will most certainly have some beautiful blossoms, providing the feeding of the plants and working of the soil be attended to.

PERENNIALS FOR DRY SOIL (*S. C.*).—We are very much afraid that it would be quite useless in the circumstances giving you a general list of plants, and particularly of perennials, so many of which prefer good soil and a fair amount of root moisture in summer, unless the conditions could be modified somewhat. The narrowness of the border, the well grown shrubs in such close proximity, the "extraordinarily dry sandy soil

in the full glare of sun," and the sharp slope to the lawn are all against you. In the circumstances we think you had better endeavour to plant a few things as *Lilium candidum*, *L. croceum*, *L. umbellatum*, *L. tigrinum*, and others, with *Gladiolus*, *Galtonia candicans*, *Alstroemerias*, *Irises*, especially of the bulbous and flag sections, *Oriental Poppies*, and *Poppies* generally; *Fritillaries*, *Daffodils* in plenty, *Tulips*, &c. Dwarf perennials most likely to succeed would be hybrid *Columbines*, *Campanula muralis*, *Armerias*, *Arabis* (double white), *Pinks*, *Aubrietias*, *Alyssum saxatile*, *Cornflowers*, &c. Now and again in very hot positions the *Calochorti* are a complete success, and form quite a feature in any garden. Can you do nothing by way of trenching, manuring, and curtailing the rooting of the shrubs?

BEGONIA AND GLOXINIA (*W. Warren*).—The first of these would appear to have suffered from strong sun-heat when the blossoms were either wet from syringing or from the moisture condensed on the outer petals. The remedy, if the plants are indoors, is a more buoyant atmosphere. The *Begonia*, with its very succulent stems and leaves, requires very little atmospheric moisture. The *Gloxinia* bloom, we should think, has been attacked by some small insect or boring mite, but we failed to find any insect on the flower sent, and are unable to suggest a remedy in the circumstances other than fumigating with *XL* All or similar compound to keep all insect pests at bay. The *Montbretia* is attacked by a fungoid disease, and if many are as bad as the one you send your better plan will be to pull them up and burn them, as the corms will be of such poor quality that no good flowering could be expected from them another year. If only a few are attacked, pull them up and burn them at once.

TRIMMING YEW HEDGE (*D.*).—1. The hedge should be allowed to grow to the required height before being topped, though the tops of any long, strong growths that run away from the remainder may have their points taken out in the spring to prevent them growing at the expense of the base. The second year after planting is the earliest time to clip a Yew hedge, and, if not growing very strongly, the third year may be soon enough. 2. The sides of a Yew hedge should be clipped with the shears to keep it in bounds, otherwise the width of the hedge will be out of proportion to its height. For a hedge up to 6 feet in height the sides should be cut perfectly straight, but if above that the sides should be gradually sloped inwards towards the top, so that the width of the upper part is about two-thirds that of the base. This tends to keep the base of the hedge furnished, an important point with all hedges. The best time to clip a Yew hedge is towards the end of May, annually, when it can be cut hard or only lightly, as may be required. Thus, if it is broader in some parts than in others, the whole should be cut back to one level, but if fairly even, a regular clipping is all that will be required. With a young hedge, however, it is better to cut rather hard the first year or two to induce a close, firm growth. Strong-growing hedges, especially in good seasons, usually require a second trimming in September, but this should be merely a cutting away of long growths, any close trimming required being done in May.

SHRUBS FOR HEDGE (*Westcliff-on-Sea*).—The shrub you have in mind is probably the *Myrobalan* or *Cherry Plum* (*Prunus cerasifera*). It is a good hedge plant, and, we think, would suit your purpose if there is plenty of room. It grows quickly, and makes a formidable and an excellent protective hedge; it grows well near the sea. You might do worse than try *Euonymus* or *Tamarix*, both excellent hedge plants for the seaside. *Hornbeam* grows quickly, and makes a good deciduous hedge. As you want a hedge in the shortest possible time, however, you can hardly do better than plant the *Myrobalan* or *Privet*. Give the plants a well-prepared and

enriched border to grow in, and take care that they are never allowed to suffer for want of water. Unless these two latter details are attended to the plants will make slow progress. Plant in October.

SHRUBS FOR SOUTH-WEST AND WEST WALL (Worcester).—*Carpenteria californica* would do well as a wall plant under the conditions you name, but we should not recommend either of the *Daphnes* for the purpose.

INSECT (Mrs. L. W. Bancroft).—The insect which you enclosed is a specimen of the common hornet (*Vespa crabro*). The best way of destroying the pests is to take their nest, which is generally made in some hollow tree or under the eaves of an outhouse or barn, but they have been known to make one in a bank. You might catch a number of them in wide-mouthed bottles half filled with sugar and water or sugar and beer.—G. S. S.

FERNS (T. and P.).—There is no doubt that thrips are the cause of the injury to the enclosed Fern, for, though by the aid of a glass we cannot find any perfect insects, traces of them are everywhere very pronounced. Even the youngest fronds, which to the naked eye look fresh, are badly scored. We suspect it is the minute yellow thrips which have done the injury, as they are so small as to be scarcely noticed until the mischief is done. The XL All Vaporiser is the most effectual remedy.

DISEASED WATER LILIES (J. C.).—Fumigate the place at intervals of say ten days or a fortnight for a time, and at the same time float some paraffin solution in the water in the tank. After a few hours let in fresh water to gradually wash away the paraffin. By this means we think you could get rid of this dreadful pest, which is spoiling many of the choice Hybrid Water Lilies in ponds outdoors this season, where it is difficult to deal with it.

CATERPILLAR (Skutterskelfe).—The caterpillar you sent is that of the common dagger moth (*Acronycta psi*), a very common insect. The caterpillars feed on Pear and a variety of other trees and shrubs. The moth is a very ordinary-looking grey one. It measures not quite 2 inches across the open wings. Unless the caterpillars are very abundant they will not do any appreciable harm. They are so conspicuous that if the tree is a small one they are best picked off by hand.—G. S. S.

SHEEP MANURE FOR ROSES (J. T.).—This would be an excellent manure to make liquid from; but could you not add a bushel or so of cow manure with a small bag of soot? Then you would have a splendid fertiliser for your Roses. But, failing these two last, then use the sheep manure alone. We believe in giving a change of food to the Rose plants, namely, one week that made from sheep manure, the next week from the ordinary farmyard manure, then a sprinkling of bone-meal. This latter is best applied early in spring and once again during summer, or immediately following the first blooming. The overflow liquid from a cesspool is an excellent fertiliser if used cautiously. All manure should be given weak and often rather than strong and seldom.

DESTROYING LAWN WEEDS (K. G. B.).—The part played by sulphate of ammonia when dressed on lawn weeds is to burn the foliage, because it is broad and the mineral rests upon it and thus destroys it. Grass, being erect and narrow, does not retain the mineral in that way. What is known as Watson's Lawn Sand, really strong minerals, acts in the same way. It does not follow, however, that while leafage is killed roots are also. It is difficult to exterminate these except by adding to the centre of each weed or to the root-stalk a few drops of sulphuric acid or paraffin. Applications of both minerals and acids should be made at once. Of course, if your lawn weeds are killed by the applications, large bare

patches will be left to be filled by putting down fresh turf.

THE BEST RED AND WHITE CURRANTS (A. M. B.).—The best Red Currants for size are Fay's Prolific and La Versailles. Ruby Castle is the best late large red. The best white varieties are the Large Transparent and White Grape. The best red Raspberries are Superlative, a fine berry, and Semper Fidelis, for late use and cooking. The best whites are The Guinea and Yellow Antwerp. The best autumn Raspberry is the red Belle de Fontenay.

CURRENT BUSH SHOOT (A. M. B.).—The shoots from your Currant bushes which you sent show that the bushes are in far from vigorous growth, having a quantity of lichens on them and a certain amount of a fungus which probably is not a true parasite, but is merely growing on the dying tissues of the shoots. I should imagine that there was something wrong with the drainage, and that the soil was too poor and wet, or are the bushes planted too close together, so that they do not get enough sun and air? Or are they too near large trees? Try some in a different part of the garden.—G. S. S.

CATERPILLARS ON CABBAGES (Broadford).—It does not seem possible for anyone to devise a desirable method of destroying caterpillars on Cabbages of appreciable size without rendering the Cabbages useless. Were any kind of liquid or powder applied sufficiently potent to destroy the pests it must either kill or poison the Cabbages. In the case of very young Cabbages it should be possible to hand pick the Caterpillars from them. The only safe application, so far as we know, although its power to kill the insects is not assured, is to sprinkle fine salt over the Cabbages at night time, then well wash it off with drenchings of clear water in the morning. In districts where the Cabbage moth (*Mamestra brassicae*) is usually prevalent if it be not possible to catch and destroy them before they have deposited their eggs on the plants, the only other course open is to cover the bed with very fine netting, keeping it on framework 12 inches above the Cabbages. Hand pick now all you can.

ONIONS DISEASED (A Constant Reader of "The Garden").—Your Onions are attacked by the grubs of the Onion fly (*Phorbia cepetorum*). It is not an easy pest to deal with, for, as soon as the grub is within the bulb, there is no means of killing it without destroying the bulb. When Onions are sown in drills they should be earthed up well over the necks, in order to prevent the flies getting to the bulbs and laying their eggs on them. Spraying the plants with paraffin emulsion is a very useful preventive of an attack; it should not be used too strong, and should be applied when the plants are quite small. The operation should be repeated two or three times at intervals of, say, a week or ten days, or oftener if there has been heavy rain, which will have washed the plants clean. The infested plants may generally be noticed, as they turn yellow, droop, and wither. When this is the case they should be at once removed. Do not pull them up, or some of the grubs will be left in the ground. Take them up carefully with a spud or trowel, and put them in a basket from which the grubs cannot fall out. Burn them, or bury them not less than a foot below the surface.—G. S. S.

WORKING HOURS FOR GARDENERS (Amateur). The working hours of a jobbing gardener are ten hours a day, exclusive of meal times. The usual hours for those in private places are from 6 a. m. to 6 p. m. in summer, and from 7 a. m. to 5 p. m. in winter; but, of course, for a short time it must be from light to dark, when there is no breakfast-time, but one hour in the middle of the day. In a garden there must be a good deal of giving and taking. In many gardens the men employed work much later—indeed, till dark. Some work cannot be done when the sun is bright. Again, 7 a. m. to begin when employed regularly is much too late, and it is not usual.

The chief alteration in the time of late years has been to leave a little earlier on a Saturday and 5.30 at night; but this is mostly in towns, and subject to an arrangement with the employer, and one hour and a half only is allowed for meals when the work is left at 5.30 p. m. in summer. We should add that a jobbing gardener should be at the work, and not allow for coming or going, in the ten hours, unless you agree to different terms.

TREATMENT OF ASPARAGUS (D. D.).—The failure of a portion of the roots in your new Asparagus bed is by no means an uncommon occurrence with three-year-old plants, especially if the plants were sent a distance, or had got dried. Such plants need very careful lifting and packing. The present time is suitable to mark the vacant spaces by placing small sticks in the bed where the plants have failed, and it will then be an easy plan next spring, early in April, to plant young plants in the spaces required. Some growers make losses good by dropping seed here and there. We do not advise it, as the seedlings are so long before they are fit for use, and the bed is patchy. It is far better to plant three-year-old roots. You see, when the plants this season have made their growth and died down, unless you mark the places now you have nothing to work upon, that is why we advise doing this work now. At the planting time be sure the plants do not get dried. Let them be exposed as short a time as possible, and water afterwards if the weather is dry, covering the bed with short litter should a dry period follow planting.

REHMANNIA ANGULATA (Aberdeen).—We have not published a coloured plate of *Rehmannia angulata*, but a woodcut showing part of a spike appeared in THE GARDEN, May 9, 1903, while as recently as July 8 of this year there is a rather lengthy note referring to its beauty at Kew and other matters. Briefly, it may be described as an erect-growing plant, usually from 2 feet to 3 feet in height, but sometimes more. The flowers, which are produced from the axils of the leaves on the upper half of the shoots, are very like those of *Incarvillea Delavayi* in shape, or, to use a more homely comparison, somewhat in the way of the Snapdragon. They are about 3 inches across the expanded mouth, rose-purple in colour, and a yellow throat spotted with deep purple. As the spike lengthens a succession of flowers is kept up therefrom for some time. It is strictly a herbaceous perennial, and hardy in many southern districts, but it is scarcely likely to prove so with you. A structure from which frost is just excluded in the winter and nothing more will suit it well, but it is hardly a subject that we should recommend for window culture, as the stems would be liable to get weak and drawn. It is not at all particular as to its potting compost, and thrives well in a mixture of loam and leaf-mould with a little sand. This *Rehmannia* is a native of Central China, and its introduction we owe to Messrs. James Veitch and Sons of Chelsea, through their collector, Mr. E. H. Wilson.

NAMES OF PLANTS.—A. E. C.—*Clematis viticella*.—Miss Hampson.—*Lepidium latifolium*.—H. Coe.—The *Spiraea* not in flower is *S. Thunbergii*; the other is *S. Bumalda*.—C. E. S.—*Begonia haagiana*.—Colonel Smythe.—The name of the Rose is *White Maman Cochet*; it is one of the best Tea Roses in cultivation.—F. E.—1, *Adiantum Mariessii*; 2, *A. Capillus-veneris*; 3, *A. decorum*; 4, *Gymnogramma Pierrei*; 5, *Adiantum lunulatum*.—J. N. T.—*Calystegia hederacea*.—Sojourner.—*Lysimachia clethroides*.—S. B.—1, *Rudbeckia laciniata* Golden Glow; 2, *R. speciosa*; 3, *R. californica*; 4, *R. laciniata*; 5, *R. sub-mentosa*; 6, *Echinacea purpurea*; 7, *Romneya Coulteri*; 8, *Hemerocallis fulva* var. *Kwanso*; 9, *Helianthus multiflorus* fl. pl.; 10, *H. multiflorus*; 11, 12, and 13, garden forms of *Phlox paniculata*.—W. C.—The plant is *Alyssum maritimum*. It is propagated either by seeds sown in spring or by cuttings, but the former method is the most satisfactory. It reproduces itself in the open freely, seedlings coming up thickly around where it was growing the previous year. Also known as *Koenigia maritima*, the dwarf variety being increased by means of cuttings.—G. H. G. Louth.—*Dendrobium dalhousieanum*.

SHORT REPLIES.—A. Shann.—The bird is the Willow Wren.

SOCIETIES.

ROYAL HORTICULTURAL SOCIETY.

FRUIT COMMITTEE.

Present: Mr. G. Bunyard (chairman), Messrs. W. Bates, S. Mortimer, Alex. Dean, William Pope, G. Kelf, H. J. Wright, H. Markham, H. Farr, F. Q. Lane, J. Jaques, O. Thomas, A. H. Pearson, and J. Cheal.

AWARDS.

Tomatoes were the chief feature before the committee, and for these seven awards of merit were given. They were for

Norfolk Hero.—A fine smooth red of medium size, well coloured, and a heavy fruit. From Mr. G. W. Miller, Clarkson Nurseries, Wisbech.

Holmes' Supreme.—This is now well known. The fruits shown were larger than those generally seen. It is one of the best croppers, and finishes well. From Messrs. Barr and Sons. Also from Messrs. Hurst and Sons, Houndsditch.

Fillbasket.—A smaller fruit of perfect shape, and bright in colour, from Laxton Brothers, Bedford.

New Red.—A large fruit, heavy and very juicy, from Messrs. J. Veitch and Sons, Chelsea.

Prince of Wales.—Another fine, rather large round red, of perfect shape, from Messrs. Sutton and Sons, Reading.

Satisfaction.—In this the fruits varied in shape, but it is a splendid variety. From Messrs. Sutton and Sons.

Cherry Yellow.—A small yellow in large clusters. From Messrs. J. Veitch and Sons.

Peach Violet Hativo.—After many years this fine old variety has been honoured with a first-class certificate. It is unnecessary to describe it except to say that the twenty-four fruits shown were excellent. They were from Mr. R. Mountford, East Sheen. First-class certificate.

Pea The Scotsman.—A large-podded prolific variety of good quality. Award of merit.

Pea The Bell.—Another prolific variety, with Peas of large size, but hardly so good in flavour. These were from Messrs. Bell and Bieberstedt, Leith. Award of merit.

Five awards of merit were given to the following Potatoes:

Ideal.—A kidney of firm texture and good shape. From Messrs. Laxton Brothers.

May Queen.—Kidney. From Messrs. Hurst and Sons. An excellent variety.

Rouge Royale.—A pink-skinned kidney of great promise. From Messrs. Dobbie and Son, Mark's Tey.

Epicure.—A round variety with rather deep eyes. From Messrs. Sutton and Sons.

British Queen.—A good variety, already known as a parent of some of the best newer sorts. From Mr. J. F. Williamson, Malrow, Ireland.

From Mr. J. W. Scarlet, Edinburgh, came good samples of some of the best new sorts, among which were *Russett Queen*, a cross between *Royal Russett* and *British Queen*, something after *Schoolmaster* in shape; the produce of one root shown was represented by twenty tubers, *Southern Star* well sustaining all that was said in its favour when seen last autumn. *Midlothian Early* is another variety of great promise.

From Messrs. Cross and Son, Wisbech, came some very large tubers of *Dalmien Radium*.

Mr. William Cuthbertson (of Dobbie and Co.) showed haulms of *The Factor* and *Tyne Kidney* of remarkable vigour.

Mr. George Kelf (gardener to Miss Adamson), South Villa, Regent's Park, won the Hog Memorial Medal for a grand collection of fruit, which included Grapes, Peaches, Plums (in several varieties), and some trees in pots loaded with fruit, Melons, Figs, and Pears, certainly a grand lot, especially considering it was grown in London.

Messrs. G. Bunyard and Co., Maidstone, put up a most interesting collection of Apples, all well finished and fit for immediate use. *Silver-gilt Knightian* medal.

TURRIFF HORTICULTURAL ASSOCIATION.

THE annual show at Turriff on the 1st inst. was one of a high class, and passed off very successfully, this being largely due to the fine exhibits made by the professional gardeners connected with such mansions as those of Anchintoul, Delgaty, Forgien, Eden, Hatton, and Mountblair. The pot plants in particular were exceedingly good, and the prizes were well divided among these competitors. Cut flowers were excellent, but the fruit and vegetable classes appeared to have fewer entries than usual, probably owing to the nature of the season. Mr. G. A. Duff of Hatton performed the opening ceremony.

WEST DERBY.

THIS annual show was held in the Rectory grounds on the 7th inst., and compared favourably with those in former years, both in number of entries and quality.

For twelve bunches of half-hardy annuals, distinct, Mr. George Osborne, gardener to Dr. Cook, won with good examples. For the same number of herbaceous cut flowers the same exhibitor was to the fore, having good *Lilium auratum*, *Phlox*, *Crocus*, &c.

For twelve spikes of *Gladiolus* Mr. G. Osborne again led, and also for six distinct cut roses.

For twelve vases of Sweet Peas Mr. H. Ogden had the best, and for the bouquet of flowers.

For twelve distinct varieties of vegetables Mr. G. Osborne won, having good Beet, Onions, French Beans, Potatoes, &c.

For six distinct varieties Mr. G. Firkins, gardener to W. Bartlett, Esq., led, and held the same position for two dishes of culinary Peas.

Mr. H. Ogden had the best dish of Tomatoes.

For six dishes of hardy fruits Mr. G. Osborne won with a good even lot, and also scored for six table plants, one foliage plant, with a well-grown *Croton*, two pots of *Liliums*, two flowering *Geraniums*, one *Palm*, and for four stove or greenhouse plants, having good *Crotons*, *Lantana*, and *Fuchsia*.

For the group not to exceed 100 square feet three good lots were set up, Mr. G. Osborne having the premier collection, his centre being excellent, and telling pyramids. The remaining awards went to Mr. J. Knowles and Mr. H. Ogden.

Mr. C. A. Young staged a fine lot of cut Carnations not for competition.

The arrangements were ably carried out under the supervision of Mr. C. A. Young (chairman), Mr. J. Flint (treasurer), Mr. Arthur Rose (secretary), and Mr. C. F. Wearing (assistant secretary).

MAINS AND STRATHMARTINE.

THIS society held its annual show at Downfield on the 5th inst., the exhibition being much finer than those of most former years. Both quality and tastefulness in arrangement showed signs of improvement, and the good work done by the society is becoming increasingly evident. Flowers were the leading feature, but vegetables, pot plants, and fruit were of excellent quality. Much interest was displayed in the vegetable competition, Mr. D. M. Kerr of Claverhouse having again entered the competition for the Carmichael Silver Cup, he having already won it twice. He was again successful, so that the cup now becomes his property.

CLEPINGTON.

AN excellent show was made by this society on the 5th inst., practically all classes being well contested, and showing evidence of high cultural skill. Cut flowers had been affected by the dry season, but, on the other hand, pot plants were much above the average. In this department Mr. E. H. Low, who was among the most successful competitors in other departments also, took the greatest number of prizes. Vegetables were of high quality.

FIFE AND KINROSS ROSE SHOW.

THE annual show of the Fife and Kinross Rose, Pansy, and Viola Society was held at Cowdenbeath on the 5th inst. In addition to the classes for *Roses*, *Pansies*, and *Violas*, other flowers, pot plants, and vegetables were also exhibited. Taken altogether, the show was a marked advance upon its predecessors, both in numbers and quality. In the nurserymen's classes the exhibits of Messrs. J. Simpson and Sons and Messrs. D. and W. Croll, Dundee, were greatly admired, and were of high quality. The amateurs also showed well, and among the leading prize-takers were: Mr. J. Pearson, Milnathort; Mr. J. Lister, Halbeath; Mr. L. Black and Mr. D. Miller, Kinglassie; Mr. J. Hutt, Cardenden; and Mr. J. Herd, Bowhill.

GLAMIS SHOW.

THIS show was held on the 12th inst., a distinguished company, including the Countess of Strathmore, gracing it with their presence. The show was an excellent one in its various departments, and generally equal to those of former years. In the vegetable department the leading winners were Messrs. M'Ewan, Crichton, W. Batchelor, Rennie, and Simpson. In the flower classes, Messrs. Martin, Hogg, M'Ewan, Simpson, Crichton, Pantou, Batchelor, and Smith. In the fruit classes, Messrs. Rennie, Crichton, Pantou, Anderson, Simpson, and Hogg.

EDINBURGH WORKING MEN'S FLOWER SHOW.

THE annual show under the auspices of the Edinburgh Working Men's Horticultural Society was held in the Corn Exchange, Edinburgh, on the 12th inst. This was the forty-first exhibition held by the society, which has done valuable work in fostering a taste for horticulture in the city. A valuable feature of the society's work is the encouragement given to the cultivation of flowers in the most densely populated areas in the old town of Edinburgh, and the prizes offered for plants cultivated within that district have done much to encourage the growth of flowers there. Some of the exhibits from these densely populated quarters were highly creditable to the cultivators. The show, as a whole, was a very good one, and a class for small tables of plants arranged for at the suggestion of the Scottish Horticultural Association, was highly successful. The entries in point of numbers were hardly so good as last year, but various causes not likely to recur account for the deficiency in this respect, and the quality was of a really high class. Cut flowers were excellent, pot plants were generally very creditable, and the ferns were unusually fine. At this season, when pressure upon space is great, a detailed list of the principal prizetakers cannot be given, but it may be mentioned that among the winners were Mr. J. C. Brown, Mr. W. Y. Bryson, and Mr. T. Rodgers.

CULTER HORTICULTURAL.

THE above society held its show at Milltimber recently and was, on the whole, a good one, although it is to be regretted that there was a falling off in the number of entries. This is less to be regretted on account of the high quality of the exhibits as a whole. The leading prize winner in the classes for professionals was Mr. Jamieson, Hawhill. The amateurs were divided into two classes—those with first-class gardens and those with third-class ones. In the former the leading winners were Messrs.

Fraser, Lindsay, Troup, and Moncur. In the latter the principal winners were Messrs. J. Davidson, G. Clark, R. D. Scott, and J. and W. Duffus. The weather was unsatisfactory, but the show passed off well.

STRICHEN HORTICULTURAL SOCIETY.

THE annual show was held recently in the Mart Buildings at Strichen, and proved one generally equal to any of its predecessors, although a few classes, such as for window plants, were not so good as usual. Cut flowers, as at many other northern shows, are exceedingly well exhibited here, and there was an excellent display. Fruit and vegetables were also highly creditable. Among the leading prize winners for pot plants were Dr. Trail, Mr. James Salter, Mr. W. Calder, Mr. A. Mitchell, Mr. A. Walker, and Mr. J. Milne; for cut flowers, Mr. A. Walker, Mr. James Hepburn, Dr. Trail, and Mr. J. E. Smith; for fruit and vegetables, Mr. A. Walker, Mr. J. R. Smith, Mrs. Gill, Dr. Trail, and Mr. W. Thomson.

LOCHEE.

THIS society held its annual show at Lochee, Dundee, on the 11th inst., and it was quite equal to that of last year, but the season having been an unfavourable one there was a falling off in cut flowers. The strongest section was that for vegetables, in which were many fine exhibits and a strong competition. Onions were exceptionally good, and Mr. A. Smith was first in the leading class, Mr. James Scott coming second with a good exhibit. Collections were also good, the first prize falling to Mr. Orcheston; Mr. Alex. Beddie came second. Pot plants were well shown, and such popular plants as *Fuchsias*, *British Ferns*, foliage plants, and *Begonias* were highly creditable. The window-box competition brought out some capital exhibits, reflecting much credit upon the growers in this busy industrial district.

LLANISHEN AND DISTRICT HORTICULTURAL SOCIETY.

LLANISHEN is a pleasantly-situated suburb of Cardiff, and it was here in the Vicarage field that this society, which is affiliated with the Cardiff Horticultural Society, on the 9th inst., held its seventh annual show, the exhibits being arranged in three spacious tents. The schedule comprised 127 classes, but we have only space for a description of a few of the exhibits.

Group of Plants in 50 square feet: There were three bright round arrangements, composed of well-grown plants, that are usually used for this purpose. Mr. Setter (gardener to J. Harman, Esq.) was first, followed by Mr. H. Rees (gardener to J. C. Downing, Esq.) and Mr. Matthews (gardener to W. H. Cullen, Esq.).

Twelve tuberous-rooted *Begonias*: Three competitors staged in this class, and it is not too much to say that the first prize plants, brought by Mr. Matthews, were superb, fine large specimens of splendid varieties, perfectly cultivated. Mr. Downing was second with but slightly inferior plants.

Six *Gloxinias*: Similar remarks as above respecting cultural skill apply to this class, and amongst six exhibitors Mr. Setter took the lead, closely followed by Bishop Hedley's gardener and Mr. Hawkins (gardener to H. J. Ensor, Esq.).

Roses, twelve blooms, were only fairly good, the best being from Mr. W. N. Lewis and Mr. J. Porter, who were placed first and second; but Carnations made a good class, Mr. Porter being placed first amongst five exhibitors, and Mr. Watkins second.

Cactus *Dahlias*, twelve blooms, were very creditably staged by five competitors, especially so by Mr. W. Bolton, jun., and Mr. Nichols, who were respectively first and second.

Asters, twelve blooms: The leaders (Mr. Porter and Mr. W. Bolton, jun.), amongst eight who staged in this class, set up really grand, fresh, well-finished blooms.

Twelve bunches of Stocks also made a capital class, Mr. R. Went being placed first amongst five who staged.

Sweet Peas, six varieties: Here Mr. W. Allen was first with a good set, Mr. C. R. Harrison a close second, and Mr. Lewis third.

Perennials or annuals, in twelve kinds, made a showy class. First, Mr. Gough; second, Mr. Went; third, Mr. Downing. The leading exhibitor staged a choice selection of perennials.

Six bunches of herbaceous plants were best from Mr. Hawkins, who was closely followed by the Rev. W. Davey.

Table decorations were arranged by seven competitors, who exhibited in most instances good taste. Miss Lewis, Church Terrace, Llanishen, was deservedly placed first with an arrangement of Sweet Peas; Miss Brind was a good second.

Many special prizes were offered, including some for a collection of vegetables, by Messrs. Sutton and Sons, Reading; Messrs. Wheeler and Son, Gloucester; Messrs. Cibrau and Son, Altrincham; Mr. G. Wells, Llanishen; and Mr. W. E. Walker, Cardiff. Many good exhibits were staged for these coveted prizes.

Trade exhibits were excellent, and attracted much attention. Messrs. H. and W. Evans, Llanishen, secured a silver medal for a large and excellent collection of herbaceous and other flowers, and Mr. Stephen Treseader, Cardiff, had a similar award for a beautiful bank of Roses. Certificates were awarded to Mr. W. Treseader, Cardiff, and also to Messrs. Phelps and Co., Cardiff, who each arranged effective groups of miscellaneous stove and other plants and cut flowers. Mr. G. Wells staged, not for competition, a large collection of zonal *Geraniums*, *Gloxinias*, and *Begonias*, which made a bright display.



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CHEPSTOW HORTICULTURAL SOCIETY.

THIS society held its annual show in Piercefield Park, Chepstow, on the 8th inst. in connexion with the Chepstow Agricultural Society's show. It proved to be the most successful gathering of the kind yet held by the society. There was generally a decided improvement in the quality of the exhibits.

For miscellaneous plants arranged in a space of 8 feet by 6 feet, Mr. Baker, gardener to Dr. Copper, Mount Ballard, took the lead with well-grown and arranged plants; Mr. Adamson, gardener to W. Pegler, Esq., The Mount, Chepstow, being a decidedly close second.

For six tuberous Begonias Mr. Adamson secured the lead with well-furnished, freely-flowered plants; Messrs. Heath and Sons, Cheltenham, were second with smaller plants of excellent varieties. There were four exhibitors.

The best four Fuchsias came from Mr. Baker, who was closely followed by Mr. A. E. Holway, gardener to J. S. Blundall, Esq., Larkfield.

Orchids were best shown by Messrs. Heath and Son, Mr. Adamson coming second.

Six Ferns: Here Mr. Baker again led amongst six exhibitors with large plants, Mr. Cooper, gardener to Sir W. H. Marling, Ledbury Park, Chepstow, being placed second with better grown though smaller plants.

There were four entries for six zonal Geraniums, Mr. T. E. Prosser, gardener to Captain C. Field, taking the lead, followed by Mr. A. M. Pinchin, gardener to M. Burdett, Esq.

Sweet Peas, twelve, glasses: Amongst ten exhibitors A. E. Mullens, Esq., Chepstow, took chief honours with leading varieties. The flowers were staged with their own foliage. Mr. Pinchin was second, and Mr. Evans, gardener to J. Wanklyn, Esq., third. Sweet Peas arranged for effect: Here, associated with seven exhibitors, A. E. Mullens, Esq., was again deservedly placed first with a beautiful arrangement of choice varieties; second, Mr. Smithson, Newport; third, Mr. Evans.

Twelve Cactus Dahlias: This made an excellent class, Messrs. Heath and Sons being first with a fine set of large, well-finished blooms; second, Mr. Buckland. There were seven entries.

Twelve border Carnations and Picotees: Seven exhibitors also entered in this class, the Rev. N. S. Barthrop being first and Mr. Cooper second; third, Mr. S. Phillips.

For twelve kinds of herbaceous flowers Messrs. Heath and Son easily led with a choice set, and Mr. Baker followed amongst five exhibitors.

Roses, twelve, distinct: These were best shown by Messrs. Heath and Son and Messrs. Pillinger and Co., Chepstow, Hybrid Teas being chiefly staged.

Epergne of flowers: Four fairly good entries were made in this class, there being little difference in them in point of merit. Mr. Baker was first, followed by Mrs. H. H. Clay, Miss Dorothy Price being third.

Table decorations were better than they usually are at Chepstow. Mrs. H. H. Clay, who used Jean Pernet Roses alone with their foliage, deservedly secured the lead; second, Mrs. Mullens, who also had a pretty table; third, Miss D. Price, who used Sweet Peas.

Mr. Adamson was first for eight dishes of fruit, his best dishes being Black Hamburg and Foster's Seedling Grapes, Walburton Admirable Peaches, Pitmaston Orange Nectarines, and Apicots; Mr. Baker was second, and Mr. Cooper a close third.

Three bunches of black Grapes: In this class there were six entries, Mr. Parry, gardener to D. C. Lysaught, Esq., being first with the best Grapes in the show, viz. one bunch of Madresfield Court, and two bunches of Black Hamburg; Mr. Adamson was second with one bunch of Gros Maroc and two of Appley Towers. All the remaining entries were Black Hamburgs, more or less badly coloured.

Mr. Adamson was first for Peaches with a fine dish of Walburton Admirable, followed by Mr. Baker.

The best collection of vegetables came from Mr. Baker, and this notwithstanding that it was minus a dish of Peas, Mr. Holway being a close second.

Potatoes were splendidly shown, Mr. Cooper being first for six varieties with a grand set, composed of The Factor, Sir J. Llewelyn, Beauty of Hebron, Up-to-Date, Duke of York, and Duchess of Cornwall.

CARDIFF GARDENERS' ASSOCIATION.

SUMMER OUTING TO THE KING'S ACRE NURSERIES.

THE members of the Cardiff Gardeners' Association, to the number of over sixty, selected Hereford as the rendezvous for their ninth annual outing recently, and were highly pleased with their brief impressions of the cathedral city and neighbourhood. The party, which included Mr. Battram (vice-president), Mr. E. Mayne (chairman), Mr. C. E. Cullier (vice-chairman), Mr. J. Julien (hon. secretary), and Mr. Thomas Malpass (hon. treasurer), started from Cardiff in saloon carriages soon after eight o'clock, and after a capital run arrived at Hereford at 9.37, where they were met by some of the principal officials of the King's Acre Nurseries, namely, Mr. Middlebrooke, Mr. R. Cross, Mr. Lovelock, and Mr. Dawson Smith, as well as by Mr. E. Wilson, head gardener to the Hereford Corporation, and representatives of With's Chemical Manure Company. Outside the station were five spacious brakes supplied by the Green Dragon Posting Company to convey the holiday makers to the King's Acre Nurseries, but before proceeding there a detour was made to St. Owen Street, where the new Town Hall was thoroughly inspected, Mr. Wilson and the courteous hall-keeper proving themselves to be admirable cicerones.

A pleasant drive afterwards followed to King's Acre Nurseries, where the members were received by Mr. M.

Peake (the genial secretary), Mr. Middlebrooke, Mr. R. Cross, Mr. W. J. Sherlock, Mr. Dawson Smith, Mr. Bynham, and others. The visitors, going in parties of five or more, made a complete tour of the nurseries, which are among the oldest in the kingdom, being established as far back as 1785 by the late Mr. Cranston. Until quite recently they were known as Cranston's Nurseries, and the name "King's Acre" has for over a hundred years been a famous one in horticultural centres in a greater degree owing to its reputation for the culture and production of roses. Upon the handsome lawn stands a very old Cedar tree, beneath which was originally suggested the idea of a National Rose Society. The suggestion, which was destined to have so much importance in the Rose-growing world, was made by Mr. John Cranston (now of Fownhope), Mr. William Paul of Waltham Cross, and Mr. George Davison (then a well-known nurseryman in the county). At King's Acre alone the company own considerably over 100 acres.

Numerous photographs having been taken, the brakes were again requisitioned to convey the party back to Hereford, where the King's Acre Nursery Company generously entertained the society to luncheon at the Imperial Hotel, Widemarsh Street.

Mr. Peake, who presided, proposed the success of "The Cardiff Gardeners' Association," and Mr. Julien, in response, spoke of the advance the association had made during the last ten years, and stated that both numerically and financially it had never been in a better position (applause). He had great pleasure in confirming the remarks made by the chairman with respect to Mr. Seton, the managing director, who (in conjunction with Mr. Henry Ripley) initiated the company.

The hon. secretary was heartily thanked for the admirable way he had conducted the arrangements throughout.

DYSART HORTICULTURAL.

THIS society held its annual show in the grounds of Dysart House, kindly granted by Sir Michael B. Nairn, Bart., on the 12th inst. As on some former occasions, the principal prizes fell to Mr. John Colville, Pathhead, with the result that the Nairn Cup now becomes his property, he having won it for three years in succession. In several classes the competition was very keen, and such competitors as Messrs. R. Christie, G. Patterson, H. Morrison, J. Hughes, J. Chalmers, and E. Barclay had splendid exhibits. Mr. A. Grierson, Links Street, Kirkcaldy, was awarded the first prize for the best kept and cropped vegetable garden.

PERTH WORKING MEN'S GARDEN.

THE annual show in connection with the above society was held on the Moncreiffe Island, Perth, on the 12th inst. The show was a good one, and the exhibits in almost every department would have done credit to those with greater facilities than are available to the members of this society. Among the leading prize takers were Messrs. James Gow, W. Bruce, D. Mortimer, A. Jones, T. G. Wallace, T. Guthrie, F. Stewart, and D. Leitch. Sir R. Pullar opened the show.

CARRUTHERSTOWN.

THE entries at this show, held on the 12th inst., were rather fewer than those of last year, but it is gratifying that the exhibits were of finer quality. The open classes were hardly so well competed for as they should be, and the principal winners here were Mr. W. S. Merville, Whitecroft; Mr. D. McKellar, Kirkwood; and Mr. R. J. Murray, Denbie. In the other classes the competition was much stronger, and some very good produce was shown. Vegetables were very good, and the prizes well divided among a number of competitors. Cut flowers here were very good also, and Messrs. J. and W. Tweedie were the most successful.

OBITUARY.

MR. RICHARD DEAN, V.M.H.

AT the moment of going to press we are grieved to hear of the death of Mr. Richard Dean, at the age of seventy-six. Few names were more widely known in horticultural circles, and his knowledge of florists' flowers was considerable. Mr. Dean was, at the time of his death, secretary of the National Chrysanthemum Society and a member of the floral committee of the Royal Horticultural Society. A man of strong personality has gone from among us. Mr. Dean was in the first list of the Victoria Medallists of Honour.

MR. JOHN BOUSFIELD.

MR. JOHN BOUSFIELD, who died recently at the age of ninety-three, was one of the founders of the Darlington Horticultural Society. It is interesting to know that he had lived under five monarchs, and had seen eight Bishops of Durham.

LATE NOTES.

Henry Eckford testimonial.—The contributions to this fund up the evening of the 19th inst. are as follows: Previously acknowledged 1,022s.; Mr. E. T. Cook, 10s.; Mr. C. Cressly, 5s.; Mr. R. Dean, 10s.; Messrs. Dobbie and Co., 21s.; Mr. P. Murray Thomson, 10s.; and Mr. Charles Webster, 5s.

Ipomœa rubro-cœrulea.—This Ipomœa, about which there has been considerable correspondence within the last year or two, is still a delightful object in No. 4 greenhouse at Kew, where for some time it has proved a great centre of attraction. The plants under notice are allowed to mingle with some vigorous specimens of *Asparagus plumosus*, and the feathery sprays serve as a delightful setting to the indescribable yet charming blue flowers of the Ipomœa. In ordering the supply of flower seeds for the year a few pence may well be spared for a packet of *Ipomœa rubro-cœrulea*, for though it is not everywhere a success out of doors, under glass it is very beautiful.—H. P.

International Horticultural Show in Paris.—By way of completing its arrangements for 1905, the National Horticultural Society of France, which held a very successful show in Paris last May, is now making active preparations for a grand international autumn show. The site, already well known to numerous English visitors, is the old Palace of Horticulture of the Universal Exhibition of 1900, now more generally known as the greenhouses of the Cours la Reine, running alongside the Seine to the left of the Champs Elysées. Several other events of horticultural interest, which are mentioned below, will take place in conjunction with this show. It is international, and exhibits from foreigners are invited in the numerous classes provided by the schedule. There will be no entry fees for foreigners. The schedule, which can be obtained on application to the Secretary, 84 rue de Grenelle, Paris, is divided into ten separate sections. The first section is for Chrysanthemums, seventy-four classes being allotted to seedlings, cut blooms, and pot plants. The second section comprises flowering plants in pots, thirteen classes. Others are for Orchids, exhibits in the floral art, fruit, fruit trees, ornamental trees and shrubs, vegetables, fine arts, and horticultural sundries. Books and gardening publications relative to the flowers, fruits, and plants exhibited are also invited. The show will open on November 4 next, and close on the 12th of the same month. On the first day of the show the French National Chrysanthemum Society will hold its annual conference in the hall of the National Horticultural Society. There will be two sittings of the conference, viz., on November 4 and 5. The agenda contains ten subjects upon which papers are expected to be read and discussions invited. The chief of these are the uses of the Chrysanthemum for decorating gardens and apartments; the best means of preventing damping; the use of the repertory of colours in describing Chrysanthemums; means to promote the culture of the Chrysanthemum; best composts for pot culture; the best means to keep cut blooms; packing; and practical means to obtain stiff stems. New seedlings at this show will be judged by a special jury, the Paris rules being adopted, i.e., five blooms of each novelty with not less than 16 inches to 20 inches of stem with foliage. No commendations will be awarded, only certificates. On November 6 the Pomological Society of France will hold its forty-sixth session. This, too, will take place in the hall of the National Horticultural Society of France. A long list of subjects relative to pomology and to the business of the society has been drawn up for consideration by the meeting.

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THE SHREWSBURY SHOW.

THE thirty-first annual exhibition of the Shropshire Horticultural Society—widely known as the Shrewsbury Floral Fête—was held last week, and once again delighted all who visited it. Shrewsbury Show to the provinces is as the Temple Show to the metropolis; it is visited by gardeners from all parts of the kingdom, and almost every county sends its competitor. It is, moreover, the occasion for a holiday for thousands of persons in the Midlands, and crowds throng the tents and the beautiful Quarry grounds on each of the two days.

The Shropshire Horticultural Society works on a scale unequalled by any other provincial or metropolitan society. At the exhibition held last week over £1,200 in cash was given away in prizes, besides silver vases and cups and medals. Last year the society's income was over £4,500, the gate-money alone being more than £2,000, and the attendance on the second day was 70,000. Some thirty years ago, when the show was instituted, the value of the prizes was less than £100. From all its exhibitions the society has received more than £85,000. Although the profits have not been exceptional, owing to the large expenses, the sum of £7,000 has been spent in beautifying the Quarry grounds, in donations to charitable institutions, &c. At a cost of £1,086 the society provided the statue of Charles Darwin that stands in front of the school where he was educated—now a public library—and thus gave to the town a fitting memorial of her most famous son. The unexampled success of this horticultural society is chiefly due to the efforts of the honorary secretaries, Mr. W. H. Adnitt and Mr. W. W. Naunton, neither of whom, it is said, has been absent from one of the annual shows.

One Shrewsbury Show is very much like another. It is the same with all large flower shows, and it becomes increasingly difficult to introduce any novel feature. The Champion Silver Cup, which was offered for the best exhibit of a dozen bunches of Grapes some few years ago, and which has not yet been won three times by the same exhibitor, created a great deal of interest. This innovation did a great deal of good. It brought a new interest to the show, and gave a fresh

impetus to the fruit classes. There is no doubt that now the finest Grapes in the country are exhibited at the Shrewsbury Show. It ought to be possible to introduce something fresh in the classes devoted to groups of plants and cut flowers, for these are pretty much the same year after year. However, the public seem well satisfied with the fare provided, for they come in increasing numbers annually.

NOTES ON PLUMS.

THE Plum trade has not been so profitable for the growers this season as many expected from the diminished crops. Before gathering began fancy prices were asked by some, and it was assumed that the average would be unusually high. Except as regards the earliest green or ripe Plums, or extra fine samples of Rivers' Early Prolific and Czar, this has not proved to be correct. The Pershore variety has not made an average of more than about 5s. 6d. or 6s. per pot of 72lb., and some have been sold in quantity as low as 4s. or 4s. 6d. for the same amount. The irregularity in the crop of Plums has been very strangely shown this year. In some plantations there is no fruit, and in others there is abundance, or a few scattered trees in a holding are loaded with Plums while the others have few or none.

In comparing several sites the advantage in almost every case is in favour of the higher ground; but the effect of shelter in some instances is conspicuous, and this points to the fact that part of the injury to the blossom was due to wind influence. These two factors require careful consideration in planting Plums, or, indeed, any of our hardy fruits, for the absence of one of them may cause the discordant results that are so puzzling. We have examples of this on the farm under my charge, for in an old orchard at the lowest part of the place, near the River Avon, trees of the Pershore Plum, sheltered by larger Apple or Pear trees, have had a fair crop, while trees of the same variety on elevated land, but very exposed, have had very few fruits, though they flowered profusely. On a large plantation of ten acres, chiefly Plums, also on high ground, the trees round the outside have scarcely a fruit, while some of those occupying the inner parts of the orchard have yielded well for the season. With the weather influences of some adverse springs to contend against there is little doubt that protection or shelter is of even greater importance than elevation of site, though both demand attention from planters more frequently than it is accorded.

It is customary to regard the Pershore as the Plum especially adapted for this district, as it undoubtedly is, but there are others which grow and fruit extremely well, though perhaps they would not give such regular or heavy crops over a series of years. Victoria succeeds most satisfactorily, and the fruits develop to a great size; in fact, I have not seen such fine examples in any other district as some of the growers have here. Another variety which thrives is Czar; the trees make astonishing growth, and bear very freely too, but as regards vigour of growth it is quite equalled, if not surpassed, by Belle de Louvain.

These remarks refer particularly to young trees, and hard pruning results in dense heads of unfruitful wood. With well-directed, moderate pruning, handsome useful trees are quickly formed, and little cutting is needed when they are once in full bearing. Unfortunately, in many of the plantations, there are trees which have never had the initial shaping that has so important a bearing upon freely-growing fruit trees. The evil resulting from excessive pruning has led to the other extreme, *i.e.*, too little use of the knife, and long, straggling, unevenly-placed branches are the result.

R. LEWIS CASTLE.

A DAY IN THE ROYAL GARDENS, SANDRINGHAM.

PEACEFULNESS is the feeling that dominates all others in the King's gardens at Sandringham. There are no violent contrasts, and this feeling of repose appears to take possession of one the moment we leave the station at Wolferton. We leave the world and its cares and worries behind as we pass along the carriage drive that winds among the Pine groves, and as we reach the higher ground we catch glimpses between the trees of the sunlit waters of the sea in the distance. The woods are not all confined to conifers, but conifers predominate. There are Oaks and Birches. These are margined with Rhododendrons, interspersed with wide breadths of Bracken, wild wood Sage, and pink Heather. Something more than twenty years have passed since I last visited Sandringham. The plantations were then comparatively young, and the trees have grown splendidly. Many of the conifers are handsome specimens, and one can see now how well the planting was designed and carried out. The day was a gala day at Sandringham. The Cottage Gardening Society was holding its fortieth exhibition of garden produce in tents in the grounds near the church, and through the thoughtful kindness of their Majesties the beautiful grounds were thrown open to visitors. Thousands of excursionists from London, York, Norwich, and other places had taken advantage of the opportunity to visit the Norfolk home of our kindly King and Queen.

The whole of the gardens, stables, kennels, and the dairy were open to visitors without restrictions. A policeman or two were stationed about, but their chief work was to answer questions to localise the different departments, which they very courteously carried out.

There are charming lakes of pellucid water, with stretches of turf between, running through the grounds. In the water were groups of Water Lilies, and the sloping banks were broken up with Rhododendrons, and overhanging trees were in places reflected in the water. At every vantage point one could see the arrangement of the grounds had been carried out in a conservative spirit, for the old trees (some of the old Oaks are very large) have been carefully preserved and brought into prominence.

In all parts of the grounds object-lessons are plentiful. One of these may be seen in the large use which has been made of groups of China Roses planted thickly to form masses jutting out in retired spots from the margins of the shrubberies. Where more colour is required, evergreens, Barberries, and St. John's Wort have been used in a similar manner. Round the margin of one shrubbery group in the distance have been planted Red-hot Poker plants, mixed with Hyacinthus candicans. The flower-spikes of the latter are now very conspicuous; the Poker plants will flower later. In these matters the one dominant thought in the planter's mind appears to have been, there shall be no bare earth visible, no meanness. The turf meets, and in a sense envelopes, the trees and shrubs, and this is as it should be from my point of view. For the most part there are no encircling borders of flowers such as are common in many gardens. Away in the distance to the right, where colour is wanted, there are broad borders of hardy flowers in groups jutting out from the shrubs. These borders are now very bright, and, being backed up by dark-leaved trees and shrubs, are very effective. Standing on the terrace, which runs along the front of the house, and looking over and beyond the beautiful flower garden, the lawn seems to naturally melt away in glades and recesses, in which are many beautiful specimens of conifers and other trees and shrubs.

One part of the lawn has been given up to trees planted by Royal visitors, names and dates being affixed thereto. Thus we find a very handsome specimen, perfect in every way, and some 25 feet in height, of *Abies pungens glauca*, which was planted by the King and Queen of Denmark in 1896.

The Terrace Garden is now bright with scarlet, pink, and salmon Geraniums, margined with white-leaved *Centaureas* and blue *Lobelias*. Some of the larger central beds are filled with mixtures of sub-tropical plants, white *Marguerites*, and other flowers which tone down the bright colour of the Geraniums. To give elevation and introduce a golden tint, which is absent for the most part in the flowers, a free use has been made of pyramid Golden Hollies and Yews, which are kept trimmed to perfect shape, and are no doubt found useful in the winter arrangement of the beds. Everywhere one notices the tasteful effect and warmth which is produced by coloured foliage in the trees and shrubs, the Purple Beech, the Silver Maple, and other coloured-leaved things. Special mention may be made of Hollies, which are always so dressy in winter.

One of the prominent features of the place is the delightful way in which many tinted creepers have been used to cover the house. *Ampelopsis Veitchii*, *Euonymus radicans variegatus*, and a small-leaved Ivy which looks like *caenwoodiana* are most effective. The ruling genius of the place has been lightness and peaceful repose; trimness there is also, but it is the work of a light and graceful hand. We see this in the beds of flowers which grow up close to the house, and which are very tastefully arranged and planted, a little novelty being introduced in the standard *Heliotropes* and *Fuchsias*.

The same lightness of touch and skill in arrangement runs through the plant houses,

especially in the long corridor which surrounds three sides of the group of houses devoted to plant growing, Melons, &c., and which is now very bright with many tints of flowers and foliage. The one noticeable feature in the plant-growing is the absence of stakes. Stakes there are, of course, where necessary, but the work of training has been carried out with a surprisingly small number, and these inconspicuously placed. Thus there is an entire absence of all hardness and stiffness of outline, which is sometimes so aggravating to the sensitive mind.

As we enter the gate of the kitchen gardens a prominent feature will be seen in the pergola, which is erected in a substantial manner, and will no doubt be very charming when completely covered with choice creepers. The paving was a novelty in stonework and creeping plants; but this could not be fully examined as it was covered with planking to bear the weight of the crowd of visitors which thronged the garden. In the kitchen gardens were many interesting features; specially noticeable were the broad borders of hardy flowers in much variety, now literally crammed with flowers, from which cart-loads of long-stalked flowers might have been cut. Rose hedges formed the background to the borders in the central path, and pillar Roses were dropped in here and there. In the centre of the garden was a fountain, the water descending from the mouths of lions, and round this fountain is a circle of iron festoons which were covered with Crimson Rambler Roses. Many features have only been lightly touched upon, for my notes were few and short. I am trusting in anything I have written to the impression created by a quiet ramble round among the crowd of people which filled the place. In the stables, in the dairy, the kennels, and the church, everywhere, in fact, the people, for the time being, had taken possession. I saw the Cottage Gardening Society's Show, it is true, but did not linger over it. It proved that the King's cottagers had an abundance of vegetables, fruit, and flowers, and much was of excellent quality.

There was the band contest in an adjoining enclosure, and I wanted to hear the music, for flowers and music always strongly appeal to me. We were fortunate in finding seats under the trees, and this position was maintained till the band prizes had been awarded, and the scene closed with a few bars of the National Anthem.

Cambridge.

E. HOBDAY.

COLOURED PLATE.

PLATE 1281.

TWO OF THE NEWER ZONAL PELARGONIUMS.

NO one has done more to increase the varieties of zonal Pelargonium than Mr. Henry Cannell, and in the firm's nursery at Swanley several houses are filled with colour from the many sorts there displayed. It is a pure delight to step into one of these houses on a winter's day and revel in the bright colouring and take notes of the most beautiful shades. The coloured plate represents two of the newer varieties of strong colours. The one named Sir Thomas Hanbury is decidedly an acquisition.

The flower is nearly 3 inches across, and the colour is best described as a brilliant scarlet-crimson shade, the lower petals having a suspicion of magenta. It is in all ways a perfect zonal Pelargonium. The other is named Duchess of Roxburghe, and is a rich self salmon colour, the flowers are very large, and produced in large

trusses. It is a Pelargonium of very neat growth, and an improvement on the variety Mrs. Hall.

PRIZES FOR GARDENERS. SEPTEMBER.

ESSAY ON WATER GARDENING.

A First Prize of FOUR GUINEAS,

A Second Prize of TWO GUINEAS,

A Third Prize of ONE GUINEA,

And a Fourth Prize of HALF-A-GUINEA

are offered for the best Essays upon "Water Gardening."

The essay must not exceed 1,000 words in length, and should describe the best ways of water gardening and the most beautiful plants to use. Some particulars of the plants should be given as to height, colour of flowers, season of flowering, &c. The essays must be written on one side of the paper only, and must reach the Editor of THE GARDEN, 20, Tavistock Street, Covent Garden, London, not later than the 30th inst. Envelopes must be marked "Competition." The Editor cannot undertake to return the MSS. of unsuccessful competitors.

THE LATE MR. RICHARD DEAN, V.M.H.

HORTICULTURISTS of all classes will hear with much regret of the death of this strenuous worker at Ealing on the 21st ult., at the advanced age of seventy-six. I first became acquainted with him some forty years ago at the International Horticultural Exhibition of 1866. He acted as assistant-secretary of that great undertaking, the general secretaries being the late Dr. Hogg and Mr. Thomas Moore.

He will always be best remembered as a writer on and very competent judge of florists' flowers. His knowledge, though, of gardening matters was not confined to this particular branch; he had an all-round acquaintance with horticulture, his services as judge being in much request all over the country. He learnt floriculture in a good school, under the able tutorship of the late Charles Turner of Slough, and the master had an apt pupil. From there he went to Messrs. Beck, Henderson, and Child—at that time noted seedsmen—in the Strand, a firm now no longer existing, where he gained a good business training in the seed trade, which afterwards served him in good stead, starting himself in business as he did some years subsequently. As a long resident in Ealing he was actively identified with the horticultural life of this suburb in its early days. He was the secretary of the Ealing Horticultural Society for a number of years, when it was often the privilege of the writer to assist him, as at other important shows. The Ealing Gardeners' Association had in Mr. Dean a warm supporter. As a lecturer on many sides of gardening in all parts of the country he has been the means of imparting much useful information.

He was a prolific and practical writer to the gardening Press generally. Some twenty-five years ago he undertook a series of journeys in Ireland, where he visited some of the most famous gardens, contributing some graphically written articles on his tour to the *Irish Gardeners' Record*, a paper since extinct. It will be remembered by many that when the late Mr. John Wills turned his business into the General Horticultural Company, Mr. Dean acted as secretary to this great undertaking. The company had palatial offices and shops at Warwick House, Regent Street. Mr. Dean was one of the original



ZONAL PELARGONIUMS

Duchess of Roxburghe (Salmon).

Sir Thomas Hanbury (Magenta Crimson).

founders of that admirable charity the Gardeners' Orphan Fund. Gardeners and their orphans have lost in him a good friend. He was a hard-working secretary for the National Chrysanthemum Society, succeeding in this capacity his life-long friend the late William Holmes of Hackney. As is well known, Mr. Dean was the recipient of a handsome testimonial in 1902, to which a large number of distinguished people in the horticultural world from all parts of the country subscribed.

WE briefly referred last week to the lamented death of this veteran florist, horticultural judge, Press correspondent, and old member of the floral committee of the Royal Horticultural Society. To very many readers, however, he was best known as the secretary of the National Chrysanthemum Society, having succeeded in that office the late William Holmes in 1890. Probably no man living or dead was ever associated with so many horticultural societies or enterprises as Mr. Dean was. His record in that respect is a remarkable one, and it is specially noteworthy that so much were his services as secretary and organiser in request that he seemed to be connected in one way or another with a number of associations. So long since as 1866 the deceased acted as assistant secretary to the Great International Horticultural Exhibition at South Kensington, a great show indeed in those days. Of others that were then associated with him there seems to be only Dr. Masters and Mr. H. J. Veitch living. Prior to that, in 1857, Mr. Dean was secretary to the National Floricultural Society, a body which later merged into the floral committee of the Royal Horticultural Society. Both in 1876 and 1879 he acted as hon. secretary to the Hailstorm Relief Funds, organised in those years when such fearful havoc was wrought by hailstorms amongst florists' glass-houses. For some time he was secretary to the Lindley Club, the progenitor of the present Horticultural Club. He also held the same office in connection with the Postal Reform Committee, a body that did very much to help promote the establishment of the Parcels Post. For many years he was secretary to the Ealing Horticultural Society, and at the time of his death was secretary to the London Dahlia Union, as also to the National Chrysanthemum Society. When the International Potato Shows were in existence Mr. Dean was a member of the committee. He was one of the original promoters of the Gardeners' Orphan Fund. He also helped to promote the Sweet Pea bi-centenary of 1900, the forerunner of the National Sweet Pea Society. These references are far from including all the horticultural bodies with which he was connected.

With the Press he had been associated some fifty years, having been a constant contributor to *The Florist*, *The Scottish Gardener*, *The Irish Gardening World*, *The Gardeners' Chronicle*, *THE GARDEN*, and many other publications at home and in America. He was one of the oldest members of the Royal Horticultural Society's floral committee, and was selected in 1899 as one of the first to be honoured with the Victorian medal. Born at the Hill Nursery, Southampton, on February 1, 1830, he was at the time of his death in his seventy-sixth year. In childhood reared in gardening, the love for it never forsook him. When for several years he occupied a post in the Royal Nursery, Slough, under that famous florist, Mr. Charles Turner, he there imbibed those floral ideals that made him later in life so eminent a floral censor, his services being in great request. To few men has it been given to be more in demand as a judge than he; indeed, when almost at death's door so strong was the love for the work in him, and so devoted was he to duty, that he journeyed to Wolverhampton to complete an engagement. That was his last effort, and he then recognised that his work was done, and that the end of life was

near. In trade he had received a good training as a seedsman. Indeed, his wide knowledge was remarkable, and few horticulturists could excel him as an accomplished speaker. He does indeed leave in horticulture a place it will be difficult to fill.

A LARGE number of friends and sympathisers met at Ealing Cemetery, London, W., on Saturday afternoon last, the 26th ult., to pay their last respects to the late Mr. Richard Dean. The hour of the funeral service which took place in the Cemetery chapel was fixed for five o'clock. The horticultural world was well represented. The National Chrysanthemum Society was represented by all its officers, many of the executive committee, and others. Among those present were Messrs. R. Ballantine (vice-president), T. B. van (chairman), J. H. Witty (vice-chairman), A. Taylor (treasurer), C. Harman Payne (foreign secretary), D. B. Crane (chairman of the floral committee), and Messrs. W. Howe, J. W. Moorman, J. F. Simpson, A. J. Foster, J. McKerchar, E. F. Such, and J. Tyler. The gardening charities were represented by Mr. G. J. Ingram (secretary of the Gardeners' Royal Benevolent Fund), and the Royal Horticultural Society by Messrs. James Hudson, V. M. H., Owen Thomas, V. M. H., C. Jeffries, and others. The trade was



THE LATE MR. RICHARD DEAN.

represented by Mr. Harry Turner (Charles Turner, Slough), Mr. William Cuthbertson (Dobbie and Co., Rothesay), and Mr. Cox (for Messrs. Sutton and Sons, Reading). Among others present were Messrs. Archer, E. T. Cook, R. Hooper Pearson, J. H. Dick, J. W. Wilkinson (late secretary of the Royal Aquarium), and R. P. Glendinning. The chief mourners were the Misses Jessie and Hettie Dean, Mr. Gerald Dean, Mr. Alex. Dean, V. M. H., and others closely associated with the family.

The grave was beautifully decorated, the whole of the sides being lined with evergreens and choice flowers. The cemetery chapel, too, was decorated. Wreaths, crosses, and other floral tokens of esteem and regard were very numerous, one long cross arranged with Lilies, Eucharis, and other choice flowers covering the whole length of the coffin. The wreath from the National Chrysanthemum Society was about 3 feet in diameter, and was composed of large white Chrysanthemums, with a few of the crimson blooms of Goacher's Crimson at one point. Running through the space formed by the inner circle were the letters "N. C. S." worked with the golden blooms of the Pompon Flora—in every sense a most fitting tribute to the late secretary.

THE FLOWER GARDEN.

THREE GOOD BEDDING CALCEOLARIAS.

FOR many years Calceolarias have been used for the summer garden, but owing to the disease the varieties at one time popular are not grown so much as formerly. Even omitting them we have some very desirable forms that the disease does not seem to trouble, and three beds each filled with a different kind are very beautiful just now at Kew. There is that extremely useful species

C. INTEGRIFOLIA, which with protection during the winter forms a good-sized bush; indeed, it is, I believe, popular as an outdoor shrub in some parts of the extreme west of England. For all its merits it is only within the last two or three years that public attention has been directed to its great value as a decorative subject; in fact, it has, I understand, been represented in the Kew collection only within a short period. The leaves are, for a Calceolaria, rather firm in texture, and from their distinct roughened surface the plant is sometimes known as *C. rugosa*. The flowers, which are borne in large, branching panicles, are of a rich golden tint, and seen in a mass as at Kew they make a good show, which will be kept up till the frosts come. The second to mention is the rather tall-growing

C. AMPLEXICAULIS, which, grown for many years, has always resisted the disease. It is more often planted in the mixed beds of miscellaneous subjects now so popular than in a mass by itself, but at Kew, perhaps owing to late propagation, it is shorter than usual, and each plant is bearing a considerable number of its pretty sulphur yellow blossoms. The soft green foliage, too, is very pleasing, while it is also of interest as being, at least by some, regarded as one of the parents of the popular hybrid *C. Burbidgei*. The third bed at Kew is filled with plants of that comparatively new section known as

JEFFREY'S HYBRID, the result of intercrossing the herbaceous varieties with one or more of the shrubby kinds. Bedded out the plants are much shorter than they were under glass earlier in the year, and very pretty they are with their masses of bright-coloured blossoms. The majority of them have flowers of a brownish crimson and gold, while in the case of a few particularly striking ones the flowers are entirely crimson. There is undoubtedly a great future before this race of Calceolarias. H. P.

GENERAL FLOWER NOTES.

OSTROWSKYA MAGNIFICA.—There has been a good deal of discussion lately about the best way to grow the very beautiful *Ostrowskya magnifica*. In my garden I have three clumps of it, and although it flowers in all three positions, there is only one clump that does justice to the title *magnifica*, and this is close to a wall facing due south, but which is a good deal shaded by some large trees growing not far off. Here the stems grow 5 feet high, with five immense bells on each stem. In the other and less shaded positions the plants are much dwarfer, and only have one bell on a stem. The soil is strong clay, and in a mild garden, which is always a cold one, and beyond a small forkful or two of cow manure scattered over the plants in the autumn, no further trouble is taken with them, and they have

increased well during the four years I have had them. I wish one could persuade people to try things more in their gardens; it is astonishing how very many things flourish that one would never discover if the experiment were not made, and from the way several half-hardy herbaceous things succeed in the summer with me I am sure they would be hardy in more favoured districts. Take

REHMANNIA, for instance, after blooming all winter indoors I turned my plants out into the herbaceous borders, and they are more floriferous there even than in the greenhouse, and are making endless young plants from the root for future stock. I have hopes of being able to winter a few successfully in the borders.

In planting a well prepared piece of ground (whether border or not) I always think spaces should be left to make experiments like this, which, if not successful, will never be noticed amongst the flowering mass of the whole. This year I have been very pleased with *Primula obconica*, planted in a rather shady moist border, and no one seems to have seen it planted out before, at least round here. Amongst somewhat unusual plants I have in the garden which have been effective this summer are

KITABELIA LINDERMUTHII.—This has made a fine plant with curious white flowers, the whole effect reminding one rather of an *Abutilon*. This plant is quite hardy here, as also a splendid clump of *Crinum* (Powelli), yet how rarely you find the latter in gardens. The Cretan Mullein never fails to attract attention, as also *Salvia ringens* and *glutinosa* and *L. bertia tricolor*, surrounded by a mass of varieties of *Brodiaeas*, was a lovely sight earlier in the season with its brilliant-coloured leaves and little white bloom. The old tassel plant (*Cacalia*) and *Glaucium Fischeri* make beautiful glaucous effects, even when not in bloom, and *Epilobium rosmarinifolium* has the same virtue. The interesting variegated *Polygonum* is the only one of its family that is safe to use in a border that I know of, as you can easily keep it in order, and the plant is very distinct, with a Croton-like effect. A quaint little plant for the front of the border than *Origanum hybridum* would be hard to find, and deliciously sweet when brushed against. *Sanguisorba canadensis* always commands attention with its white plumes, just beginning to show at this time of the year, and is taking the place of *Verbascum densiflorum*, which has been in bloom since early in the summer, and is very noticeable with its purple blotch. *Oenothera odorata* is a gem with me; it has the merit of blooming all the summer on single spikes about 3 feet high, and it does not shut up in the day as much as some do, and is quite excellent to cut.

PARDANTHUS CHINENSIS is just beginning to make a show, and is very effective in a big group and hardy. *Lythrum alatum* is very free flowering and a neat grower, and the same must be said for *Pentstemon obliqua*. *Linum flavum* and *Alyssum argenteum* keep the border bright in yellow colour for a long time, and the old *Calceolaria amplicaulis* sprawls over where the earlier Lilies have been, and so there are no blanks. This is one of the main things to strive at in herbaceous borders. All my Tiger Lilies are blooming out of a mass of white annuals, and the *Galtonias* out of a mass of *Godetias*, &c. *Potentilla nepalense* is an everlasting bloomer, and very cheerful with its cherry-coloured flowers.

Dianthus fragrans, *Gillias*, *Nepetas*, the old *Saponaria officinalis*, *Sisyrinchium striatum*, *Stylophorum*, *Francoa* (quite hardy), *Gaura*, *Gentiana sempitrida*, and *Asclepia*, each in their season have generally "What's that" asked about them when showing people the garden, and very many more could I name, but I must trespass on space no further. One word as to the background of the borders. The shrub one, now quite bright with *Hydrangea paniculata*, *Clethra alnifolia*, the *Coluteas*, *Buddleias*, and *Azalea occidentalis*

(the only *Azalea* that flowers now, I think), while *Hypericums* and *Androsace* are very cheerful to the front. *Azara macrophylla*, *Sophora japonica*, *Panax*, *Amelanchier rotundifolia*, *Rubus variegatus*, *Leycesteria formosa variegata*, variegated *Rhododendrons*, *Euphorbias*, &c., make uncommon effects in different parts of the garden. The wall has several excellent things against it, such as *Coronilla Emerus*, *Lycium barbarum variegatum*, golden-leaved *Jasmine*, *Atrageses*, *Lycium glaucum*, *Photinia serrulata*, coloured *Vitis*, &c. Not many of these are usually grown, and I can thoroughly recommend them. None of the old-fashioned flowers are deserted for any new comer, but they make, whether old or new, a more interesting garden if plants are uncommon and not generally seen. One plant that defeats me utterly is *Lavender*. HERB O' GRACE.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

- September 6.—York Dahlia Show.
September 7.—National Dahlia Society's Show at the Crystal Palace (two days).
September 12.—Royal Horticultural Society's meeting.
September 13.—International Show at Edinburgh (three days).
September 19.—London Dahlia Union Show at Earl's Court (two days).
September 26.—National Rose Society's Autumn Rose Show, Horticultural Hall, Westminster (two days).

Presentation to Mr. Henry Eckford.—As Mr. Eckford is a native of Edinburgh it was generally thought that no more fitting occasion than that of the Great International Show could be chosen for presenting him with some silver and an illuminated address, to which the subscribers number upwards of 200. On behalf of the testimonial committee Mr. P. Murray Thomson, S.S.C., secretary of the Royal Caledonian Horticultural Society, has very kindly made arrangements for the presentation to be made in The Hall, 5, Andrew's Square, Edinburgh, on Thursday, the 14th inst., at 3 p.m. Mr. Percy Waterer, president of the National Sweet Pea Society, will take the chair. It is to be hoped there will be a large attendance. May I remind those who have not yet sent their mite that the subscription list must be closed very shortly. The sub-criptions received up to the evening of the 26th ult. are as follows: Previously acknowledged, 1,082*2*/₄; T. B., 1*1*/₄; H. J. Jones, 5*1*/₄; total, 1,088*3*/₄.—HORACE J. WRIGHT, *Dault Road, Wandsworth, London*.

Railway station gardens.—The list of successful competitors for prizes offered by the Glasgow and South-Western Railway Company for the best platform flower gardens or borders has just been issued. The following have been successful: Class I. (£6 each), Messrs. Kirkpatrick, Dalbeattie; Morren, Annbank; McDonald, Ruthwell; Fisher, Dalrymple; M. Cardle, Auchincruive; and Murray, Howwood. Class II. (£4 each), Messrs. Faulds, Maxwelltown; Coyle, Kilvhan; Kerr, Mavbole; Harvey, Houston; O'Hagan, Mauchline; Edington, Cunninghamhead; M. Innes, Auldgirth; and Kerr, Monkton. Class III (£3 each), Messrs. Mirrey, Lochanhead; Craig, Racks; Andrew, Kilkerran; Patrick, Kirkgunzton; Richmond, Newton-on-Ayr; and Brown, Saltcoats. In addition to these several others receive prizes in Classes IV. and V., the sums being respectively £2 and £1.

Lockerbie flower show.—At this show, held at Lockerbie on the 19th ult., there was a slight falling off in the entries, which numbered between 500 and 600. The amateurs

competed very largely, but the gardeners' classes were not well filled, particularly in the pot plant classes. In the gardeners' classes the most successful competitor was Mr. James McDonald, Dryfeholm, who secured upwards of forty first prizes. The amateurs' classes showed a much greater number of prizewinners.

Presentation to Mr. W. Simpson, late of Wemyss Castle, Fife.—One evening last week Mr. and Mrs. Simpson received a pleasant surprise. A few of their old friends at Wemyss had determined not to part without showing them some mark of esteem. Mr. Simpson is temporarily engaged at Balfour, Markinch. A small deputation called informally and presented him with a handsome gold watch, and his wife with a gold brooch.

Horticultural Show at Bucklebury Place, Reading.—Mr. Arthur W. Sutton, J.P., of Bucklebury Place, recently placed his charming grounds at the disposal of the Bucklebury and Marlston Horticultural Society for the holding of their tenth annual exhibition. The morning was dull, but the rest of the day proved delightfully fine, and there was a very large attendance. The entries numbered some 500, about the same as last year, and the quality of the exhibits was excellent throughout. The collections of vegetables were splendid, and other vegetables calling for notice were the Potatoes, Turnips, Onions, Peas, Beans, Marrows, and Carrots. Fruit made a good display, the culinary Apples being particularly good, and the flowers were creditable. The appearance of the show was greatly enhanced by honorary collections shown by Mr. A. W. Sutton, Mr. G. W. Palmer (Marlston House), and the Rev. C. H. Gill.

The Midland Daffodil Society.—The second annual report, containing a full list of awards, list of subscribers, and balance-sheet for 1905, and the schedule of prizes and rules for 1906, has just been issued. The annual exhibition, held on April 18 and 19, was quite up to the usual standard. Doubtless owing to the change of date, which was necessitated by the forward spring, some of the exhibitors who generally attend were absent, notably Mr. Crofield, and the number of competitive exhibitors fell from thirty-six to twenty-nine. However, to compensate for this there were four new trade exhibitors. Altogether the exhibits occupied more room than ever before. The most popular Daffodil was voted to be Mme. de Graaff. This result was obtained through the Rev. J. Jacob setting up about fifty ordinary varieties under numbers instead of names. Any visitor could put on a card the twelve he liked best. Two hundred and fifty voted. Mme. de Graaff received 157 votes, Gloria Mundi had 142, Crown Prince 139, Emperor 128, C. J. Backhouse 122, Katherine Spurrell 121, and Barri conspicuus 108. Queen Bess with six votes was last on the list. The speeches given by Mr. Robert Stdenham, Mr. Pope, the Revs. S. E. Bourne, G. H. Engleheart, and others after the dinner to exhibitors and friends on the evening of the show day are fully reported. They contain many useful hints and are well worth perusal by all interested in Daffodil culture.

The Royal Fern (*Osmunda regalis*) as an edible vegetable. At the meeting of the Royal Horticultural Society's Scientific Committee on the 15th ult., Mr. Charles T. Drury exhibited a sample sent by the Yokohama Nursery Company consisting of young fronds of this Fern, which when about 10 inches to 12 inches high and yet unfolded were collected, boiled, dried, and compressed for food. It was stated that some tons of this material were consumed in Japan, and that the dried product was soaked for ten hours in water, which was frequently changed; it was then boiled and served up with various sauces as a vegetable.

In appearance the dried material was intensely brown, almost black, and strongly resembled some kinds of string Tobacco, being extremely tough and hard, and with a somewhat bituminous smell, but after the prescribed soaking it swells considerably, becomes quite soft, and of a dark olive green. When boiled it becomes still softer, and is by no means unpalatable, a very slight astringent flavour being perceived, while, served up with sauce as prescribed by the Japanese recipe, we can quite believe it would form a welcome edible, easily masticated, void of any stringiness, and distantly resembling in appearance elongated green Asparagus shoots. *Osmunda regalis*, though still plentiful in some unfrequented parts of the British Isles, would certainly speedily disappear if the young shoots were used as described, and thus, however desirable the acquisition of a new food staple may be in the abstract, we are rather glad than otherwise that the trouble of collection, and more still of subsequent preparation, is likely to restrict our note to a mere record, and unlikely to lead to a further raid in our precious Ferny possessions. In Japan the Royal Fern appears to be very plentiful on the hills, thus at once reducing the trouble of harvesting the young shoots or the risk of extermination by their constant suppression.

Portpatrick and Wigtownshire Railway Station prizes.—The prizes offered by the joint committee managing the Portpatrick and Wigtownshire Joint Railways were awarded recently. The first prize was awarded to Newton-Stewart, one which is universally admired by the passengers, and which received the maximum number of points for everything. For the second position New Galloway, Parton, and Stranraer were equal, and these were followed by Palnure and Dromore (equal), Crossmichael, and Creetown. The closeness of the competition will be observed when it is stated that the three which took the second position were each only one point behind Newton-Stewart. A special prize of £1 ls. was awarded to Dromore as that which had made the greatest advance upon its place in last year's list.

Best kept gardens at Scone.—The annual competition for the prizes offered under the auspices of the Scone Horticultural Society for the best kept gardens has been decided, with the following results: First, Mr. J. Kinnear, Abbey Road; second, Mr. A. Harris, Perth Road; third, Mr. J. Black, Murrayshall Road. The entries were limited in number, but the gardens were generally in excellent order, and showed much attention on the part of their owners.

Examination in Horticulture.—The Council of the Royal Horticultural Society has consented to hold a special examination, for gardeners employed in the London and other city and public parks and gardens, on Thursday, January 11, 1906, at their Hall in Vincent Square, Westminster. The examination will be as far as possible practical. Candidates will be expected to have a knowledge of: 1. Trenching, digging, and draining, and the purpose of each. 2. Variety of soils and manures; their effect and suitability to various purposes. 3. Various methods of propagating trees and shrubs, herbaceous, greenhouse, and sub-tropical plants. 4. Trees, plants, and shrubs specially suitable for town growth and their correct nomenclature. 5. The general structure of plants. 6. Such elements of geometry as will assist in the formation of beds and their laying out. 7. Candidates will also be expected to display evidence of general knowledge and observation, and to be able to write an intelligent report on any subject connected with their work. No questions will be put bearing on the cultivation of fruit or vegetables. The examination, which will be partly written, partly *visu voce*, will occupy three hours for the written portion, and about twenty

minutes for each candidate *visu voce*. Candidates must send in their names, at least ten days before the examination takes place, to the Secretary, Royal Horticultural Society's Office, Vincent Square, Westminster, S.W., together with an entrance fee of 5s. to partially defray the expenses of the examination. Such little handbooks as "The Chemistry of the Garden," by H. Cousins, 1s., and "Primer of Botany," by Sir J. D. Hooker, 1s., and "Primer of Horticulture," by John Wright, 1s., will be found useful, as well as "Thompson's Gardeners' Assistant, New Edition by W. Watson," £2 8s., which, though expensive, is invaluable for gardeners.—W. WILKS, Secretary Royal Horticultural Society.

Campanula pyramidalis.—I enclose a photograph of a *Campanula pyramidalis*. It has seven spikes, the tallest being 9 feet high, measuring from the top of the pot. The seed was sown in March, 1903, and the seedlings went into 6-inch pots. They were wintered in a cold frame. In the following spring they were potted into



THE TALL BELFLOWER (*CAMPANULA-PYRAMIDALIS*). (Tallest spike 9 feet high.)

9-inch pots, and a mixture of loam, spent Mushroom manure, and lime rubble was used. The plants stood in a cold pit until the end of April, and were then plunged outside until they threw up their flower-spikes. The above plant, with several others, did not flower. Early this spring I stood them in a cool Peach house, and brought them on gently with the Peaches until the middle of May. They were then put into a greenhouse and given a plentiful supply of liquid manure, also several dressings of Bentley's Vine Manure. I think it must be the heat that drew up the spikes to such a height, as there are several other plants with six spikes 8 feet high.—C. W. GARNER, *The Gardens, Tublerdaly, Edenderry, King's County, Ireland.*

Flower show at Leslie stopped by a gale.—On the morning of the 19th ult. the large tent erected for the flower show to be

held at Leslie that day collapsed through the fierce gale then blowing, and the damage done was so great that the show and sports were abandoned, much to the regret of all and to the serious loss of many.

Gardens which benefit charities. During the summer months a notable feature of many of our English seaside resorts is the opening of the grounds of some gentleman's seat in the immediate neighbourhood, whereby the public is enabled upon one day in the week to visit some of the "stately homes of England." Though a nominal sum is usually charged for this privilege, the receipts are generally given to a local charity, so that the visitor has not only the pleasure of roaming at will over the domains of such places as we have indicated, but also the additional satisfaction of knowing that the small sum paid for admission is devoted to a charitable object. For several years past the beautiful grounds of Sir Saville Crossley at Somerleyton Hall, near Lowestoft, have been thrown open to the public on Thursdays, and the nominal charge of sixpence for admission usually results in something like £200 being distributed yearly amongst local charitable institutions. The grounds of Somerleyton are picturesque in the extreme.

JOTTINGS ABOUT ROSES.

THE ADVANCE OF THE HYBRID TEA.

IT is about eleven years ago since the National Rose Society decided to form a separate class for the Hybrid Teas, and in this comparatively short time the improvement which has been made in them is truly marvellous. A curious fact, but nevertheless a true one, is that at the time the initiation of a separate class for Hybrid Teas was looked upon with anything but favour by a number of rosarians; in fact, there was considerable opposition to the proposal. Even such a keen rosarian as the late Rev. Foster-Melliar apparently never foresaw the great possibilities of this race, for in his "Book of the Rose" (1894 edition) he says that "at present they are an unsatisfactory class. It is very difficult even now to draw a decided line as to where there is sufficient strain from the Teas to warrant the division, and it seems more than probable that the task will become almost impossible when the Hybrid Teas are crossed back again into the Hybrid Perpetuals or Teas, as they have been already in two or three instances."

Despite this discouragement, and the fact that Mr. Foster-Melliar declined to accept the ruling of the National Rose Society in the matter, the Hybrid Tea stands higher in the estimation of the public to-day, both for garden decoration and exhibition, than any other class of Rose. I am well aware that the class as a whole is singularly deficient in good red and crimson varieties, but it should be remembered that, whereas the grand Roses of the Hybrid Perpetual class are the result of years of patient work, the Hybrid Teas, with the exception of Cheshunt Hybrid and La France, are practically a new race. My own opinion is that by the time raisers have bestowed as much time and attention upon them as has been given to the Hybrid Perpetuals, we shall have varieties of the former fit for comparison with, and more probably superior to, Horace Vernet, or any other red Hybrid Perpetual in commerce to-day. After all, the Hybrid Tea never claimed serious attention in this country until Mr. H. Bennett produced Lady M. Fitzwilliam



CYPRIPEDIUM BELLATULUM GIGANTEUM. (From a photograph taken at Westfield, Woking.)

Grace Darling, and Viscountess Folkestone between 1882 and 1886.

ADVENT OF M. PERNET-DUCHER'S SEEDLINGS.

After this we had to wait until 1890, when M. Pernet-Ducher of Lyons created a sensation with his first Hybrid Teas, Mme. Caroline Testout and Gustave Régis, both of which are likely to retain their popularity for many a day. Nowadays it is quite impossible to form a good collection of Roses without including some, at least, of the superb varieties raised by this distinguished hybridist, and it is of this splendid race of Roses that I now wish to write.

THE BEST VARIETIES.

In addition to the two just mentioned, the varieties which are included in this garden, few of which I should care to be without, are as follows:

Mme. Pernet-Ducher	1891
Marquise Litta de Breteuil	1894
Mme. Germaine Truchon	1894
Mme. Abel Chatenay	1895
Souvenir de Mme. Eugène Verdier	1895
Souvenir du Président Carnot	1895
Antoine Rivoire	1896
Mme. Cadeau-Ramey	1897
Ferdinand Batel	1897
Ferdinand Jamin	1897
Mme. Eugénie Bouillet	1897
Violoniste Emile Lévêque	1898
Souvenir de Mme. Ernest Cauvin	1899
M. Buel	1899
Mme. Ravary	1900
Mme. Charles Monnier	1902
Prince de Bulgarie	1902
Mme. Paul Olivier	1903
M. Paul Lédé	1903
Sénateur Belle	1903
M. Joseph Hill	1904
Le Progrès	1904
Mme. Hector Leuilliot	1904
Etoile de France	1905

THEIR BEHAVIOUR IN ENGLISH GARDENS.

Looking through this list of Roses, one cannot help being struck, first of all, by the fact that the great majority of them are not only of high quality, but well suited for culture in English gardens. When we come to consider the large number of poor consumptive varieties which are distributed by

Continental growers every year, it is a great pleasure to be able to say that scarcely one of M. Pernet-Ducher's productions has dropped out of general cultivation in English gardens since he began sending out his seedlings. Nor do I know any other Continental raiser of whom this statement could be made with any degree of accuracy. This is a really wonderful record, and proves what an excellent strain of seedlings M. Pernet-Ducher has been able to produce. Chief among the characteristics of these Roses is that on the whole they are not liable to contract mildew easily, and this is probably accounted for by the fact that their leaves are leathery and very shiny. Mildew is such a scourge, especially on soils that dry up quickly, that this alone is a great point in their favour. With me the two varieties most addicted to mildew are Mme. Abel Chatenay and Souvenir de Mme. Eugène Verdier, and if these two varieties are examined it will be seen that they lack the shiny foliage to which I have already referred.

ARTHUR GOODWIN.

The Elms, Kidderminster.
(To be continued.)

ORCHIDS.

CYPRIPEDIUM BELLATULUM GIGANTEUM.

THE illustration depicts *Cypripedium bellatulum giganteum* which was exhibited by me at the Royal Horticultural Society's meeting in June last. This variety has a very clear white ground, and the spots are of quite unusual size. The petals are $2\frac{1}{2}$ inches long by $1\frac{1}{2}$ inches broad. This species is a native of Burma and Siam. The plants succeed best in a mixture of strong loam and brick rubble, together with pieces of old mortar or lumps of limestone. Cultivators should be very careful in watering this species. Water should never be allowed to lodge between the growths, the best method is to dip the plants up to the rim of the pot.

C. bellatulum, together with its hybrids, should be grown in a warm house, suspended from the roof and near the glass. FRANCIS WELLESLEY.
Westfield Common, Woking.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

CARNATIONS AT KEEVIL MANOR.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Probably there was never a period when Carnations of the several sections now under cultivation enjoyed so wide a share of popularity as at the present time. The border Carnation necessarily is the more welcome, because its culture is within the range of the many. Suitable glass accommodation and skill are both requirements to obtain satisfactory returns from the others. In this neighbourhood the most successful grower of the outdoor Carnation is Sir John Wallington, whose garden is full of interesting associations, dating as it does from the fourteenth century. The success which attends the growth of the border Carnation at Keevil is accentuated by the fact that the stock is kept fresh and vigorous by the importation of new ones from the best raisers.

Self, fancy, and Picotee are represented in variety. The vigour of the plants is really astonishing, some varieties in particular being exceptionally free in growth, and no sign of disease was apparent anywhere. The Carnation borders here are surrounded by grass walks, which give a pleasing foil to the floral display, and it is worthy of note that for some years past no change of site has been made, yet the vigour is maintained. The ground is deeply worked and exposed by reverse trenching in winter, and by planting time in spring the whole depth occupied by the roots has been sweetened by the weather. The varieties are so numerous that much space would be required to enumerate them all, and then serve no useful purpose; but mention might be made of Bonnar, a magnificent scarlet, which threw up its flowers on stalks quite 2 feet or more high. Ensign is a lovely Camelia-shaped white. Countess Carrington was a striking flower, difficult to describe, but suggestive of Apple-blossom pink. Daffodil, Almoner, and Grand Duke are good yellow selfs. Nox, the darkest Clove, Varo, Lollard, Etna, and Duke of Norfolk, all fine scarlets. Phoenix, Hilda, Achilles, Miss Annie Macrae, Amphion, and Harlequin may be named among the best fancies. Star, Mrs. W. Heriot, Balleriana, Lucifer, and Lord Napier are good Picotees. A very fine pink was Bridegroom, and of similar colour was Narcissus. The season was unfavourable during the time of blossom, the great heat of the day and corresponding high night temperatures being detrimental to their long keeping, but a display is maintained by a large selection of variety, and most of them of recent time.

W. STRUGNELL.

BLACK CURRANT MITE.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Will you kindly inform me if there is any remedy for the Black Currant bud mite? My bushes are badly infested. R. H.

[The Currant bud mite (*Phytoptus ribis*) each year becomes more destructive, and unless drastic remedies are applied Black Currants will soon be a thing of the past among many market growers. It used to be considered one of the most profitable fruits to grow, but, owing to the bud mite, farmers of our acquaintance have had good reason to think differently of the value of Black Currants, and have cleared whole breadths of bushes off the ground. All classes of growers are strongly advised to keep a close look-out for first attacks, and to take measures for the prevention of the

spread of the mite. The mites are so small as to be undiscernible to the naked eye, a powerful lens being needed to see them, yet if they take possession of the buds they arrest natural development of growth, an abnormal swelling of bud taking its place. In the spring, when it is seen, a certain number of buds fail to burst into growth, and are much swollen. The shoots bearing these should be cut off and burnt, or if there is only a bud here and there affected, these only may be removed and burnt. Neglect or failure to persevere with these precautions and the time may arrive when the bushes will be so badly infested by bud mites as to be quite worthless, and only fit for a bonfire. Owing to the protection afforded by the bud scales, there is no reaching the mites after they are once in possession, but experts give remedies of a preventive nature. The best of these is a preparation of soft soap, soda, and sulphur. Dissolve 4lb. of soft soap by boiling in 8 gallons of water; boil 8oz. of caustic soda and 1lb. of sulphur in a gallon of water, then mix all together and boil gently for about half an hour. When wanted for use add 12 gallons of water, heating and applying it at a temperature of 100°. Spray the bushes with this preparation in November and again in February, doing it thoroughly. This, coupled with the timely removal of all swollen buds that are seen, will rid the bushes of the mites. Also start a fresh plantation with young bushes from an untainted source, and on ground well away from the affected bushes.—ED.]

BULB SORTERS' FINGER-NAILS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—For several years past I have found that gardening causes inflammatory spots to appear under my finger-nails, which gradually spread, and eventually the nail at those parts separates from the quick. Sometimes more than half the nail is thus affected. I have consulted six doctors, but none of them knew anything either of the cause or the remedy. Lately I have heard that bulb sorters are affected in the same way regularly as the bulb season comes round, and they know of no cure except leaving the bulbs alone. I should be very glad if either you or one of your readers could tell me of something to prevent or alleviate this, as it is somewhat painful, very disfiguring, and the nails are liable to be torn up. Gardening gloves are of no use, as they do not prevent some dust getting under the nails. I used to do much more gardening without any such result in a garden which had been lately made on virgin soil, but my present one is very old. A SUFFERER.

THE PERSHORE PLUM.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I read your very interesting article on the Pershore Plum, and I thought you might be glad to have a confirmation of the fact that this variety will come quite true from seed. I can testify to this, as I have had the seeds sown and the trees fruit in my own garden, and my father raised a lot in his garden a few years ago. Respecting its advantages as a stock for other sorts, I may mention an interesting fact. In a certain group of allotments in this city there are some of the finest Victorias grown that we have ever tasted; in fact, we like no others after them. They are grafted on the Pershore stock.

For lusciousness and size they are unsurpassed. Many Victorias come into the market, and they lack colour, size, and juiciness, and eat quite hard after those I have just described; it was only recently I was informed of the secret of this.

Worcester.

QUERCUS.

BISHOP'S WEED OR COMMON GOUT WEED.

(ÆGOPODIUM PODAGRARIA.)

[TO THE EDITOR OF "THE GARDEN."]

SIR,—This grows luxuriantly on a hedge-bank near a damp orchard in this parish. I should not expect to find it in a lawn, as it is a coarse perennial growing nearly 2 feet high.

Salop.

VELD.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Bishop's Weed is a common name in England for *Ægopodium Podagraria*; it belongs to the Umbelliferae. Gout Weed is another name for the same plant. I quite agree with "A. D." that in referring to any plant it is desirable to give the botanical name, but it is also useful to give the common one, too. A. H.

BAMBOOS FLOWERING.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Last year a large clump of *Arundinaria Simoni* flowered here, and also *Phyllostachys boryana* and *P. violascens*. These are apparently quite dead. This year some smaller pieces of *A. Simoni*, divided from the larger clump, are flowering. It is disappointing after having got a good clump of Bamboos in a dry garden by abundant watering to lose them. Division and

transplanting seem to delay flowering, and it may possibly prevent it. Cutting down when they show flower does not seem to save the plants. *P. nigra*, which was moved last year, is not flowering, nor *P. Henonis*. The latter is throwing up extra strong shoots. *Phormium tenax* has flowered well this year, and has made strong growth; the mild winters of the last few years have no doubt to do with this. W. H. BANKS.
Hergest Croft, Kington, Herefordshire.

NOTES ON HARDY PLANTS.

CONVOLVULUS MAURITANICUS.

OFTEN this pretty *Convolvulus* is termed the Blue Rock Bindweed. It is one of the most beautiful of its family, and is never out of place in the garden, as it is entirely free from the rampant tendencies of its relatives. It is seen at its best when hanging over a low rock or sunny bank, which it will cover to a depth of 4 feet with its trailing shoots, studded throughout their length with clear lavender-blue flowers about the size of a florin. In July, when in the zenith of its beauty, such a plant will become a sheet of pale blue, in such profusion are the blossoms borne, and, although this lavish display of flower does not last more than a month or six weeks, the plants are rarely flowerless until the close of October in the south-west, blossoming uninterruptedly from June through the autumn. A long and steep, low bank covered with this *Convolvulus* in full flower on a sunny day is a lovely sight. On a raised mound, in pockets of the rock garden, and even



THE BEAUTIFUL BLUE CONVULVULUS MAURITANICUS IN A DEVONSHIRE GARDEN.

in the border it is also very effective. The stems are very slender; the leaves are deep green and ovate and abundantly produced, harmonising pleasingly with the lavender-blue flowers. It is a native of Morocco, but is fairly hardy, generally doing well in the neighbourhood of London and also in Sussex. It is always well, however, to strike cuttings, in case the old plants may die during the winter. These, if put under a bell-glass in sand during August, make good plants the following spring ready to take the place of any that have failed. It is an excellent plant for hanging baskets, treated in the same way as Creeping Jenny, its drooping flower-trails looking very pretty when suspended, and it is also useful for filling vases. S. W. FITZHERBERT.

GERANIUM GREVILLEANUM.

A showy Geranium, presumably new to cultivation, was received from a Himalayan source two years ago as *grevilleanum*, and it proves to be a first-rate border plant, distinct from any other species known to us. It forms a bushy clump 2 feet high and through, of umbrella-like leaves, which are divided into ten primary divisions, the free lobes being cleft again and again. The flower clusters are borne above the leaves, and they contain hundreds of blooms, coloured a rich blue, a little darker than that of *Bluebells*, each $1\frac{1}{2}$ inches across, and the petals have a pretty transparent veining, as in most *Geraniums*. The clumps have been in flower since May, and numerous flower-stems still appear to carry on the display till autumn. It is a showy plant, a long way ahead of most *Geraniums* in our estimation of its value, quite hardy, and a good perennial. A white form, the only variation so far noticed, is equally good and pretty as a contrast.

SAXIFRAGA PELTATA.

A PLANT FOR WATERSIDE.

It is remarkable that this giant Saxifrage from California, handsome alike in flower and foliage, should be so little used in these days when plants suitable for bold grouping by waterside, in woodland, and informal gardening generally are valued more and more. It is surprisingly hardy and very vigorous, capable, in fact, of living down all but the most aggressive weeds, and although it appreciates the drier parts of the bog garden, it will thrive well in any soil not naturally wet, provided it could have a liberal mulch of old manure annually and some shade overhead to help sustain it during the drier months of summer. The plant should require no recommendation at our hands, for it is very beautiful when planted in colonies of a dozen or more by waterside or occupying some cool recess amid shrubs and dwarf trees with the grass as a carpet. The thick rhizomes grow apace, and yield in early spring leafless stems 2 feet to 3 feet high, bearing a dome-shaped cluster of showy pink flowers, trails of which hang in the form of a fringe around the central mass of bloom. Later the giant peltate leaves appear and reach a similar height, often 2 feet in diameter, and have elegantly lobed and crimped margins that make them objects of beauty all the summer long. A

single crown yielding a single flower-stem and two or three leaves, planted in a border among bushy plants, serves only as an example of exceedingly bad taste in planting it there. The garden would not benefit by single specimens, and it is only when it can be effectively grouped that the plant should be used at all. G. B. M.

THE ROSE GARDEN.

ROSE DEAN HOLE.

THE value of a new Rose can often be correctly ascertained by those who grow the queen of flowers extensively under glass for market, and it was with much pleasure I heard a large grower say recently that Dean Hole was one of the most beautiful Roses he had ever

novelties added to our collections for some years past.

What I admire about so many of the recent Hybrid Teas is their vigorous growth. We seem to be getting away from the stumpy, dwarf style exemplified in Lady Mary Fitzwilliam and its numerous progeny, although conceding to this glorious Rose all the honour that is its due as a beautiful and valuable variety, which reflects much credit upon the skill of the late Mr. Henry Bennett as a hybridiser.

In Dean Hole we have a Rose of free and branching growth worthy to compare with other beautiful novelties, such as *Prince de Bulgarie*, *Joseph Hill*, and *Earl of Warwick*. The flower is very large at times, quite huge in dimensions, with a fine high-centred form, so dear to the heart of the exhibitor, and of great substance, a most valuable trait in these days of rather thin, if exquisitely coloured, novelties. The colour is silvery carmine, shaded salmon with quite a brilliant lustre. P.

ROSE ELISA ROBICHON.

THIS is another of the popular *wichuraiana* Roses, and one of the best also. To me it recalls *Perle d'Or*, although without the rich orange gold of that pretty little favourite. I think there is nothing more lovely among these fast-growing Roses than a well-flowered specimen of *Elisa Robichon*. These Roses are so useful for other purposes than for pillars, and one of the most charming ways of using them is as large handles over a bed of Roses. Just bend over a support of rustic wood or stout gas-piping, and this pretty Rose in two years will completely cover it with its delightful flowers. I think this is one of the best methods of growing the *wichuraiana* Roses, as really their prodigious growth is quite embarrassing. Cut away all flowering wood each summer immediately after blossoming, and tie in the young growths, and the difficulty of too much wood is solved. The whole tribe, from the dainty and still popular *Dorothy Perkins*, the beautiful *Alberic Barbier*, whose large Tea-like flowers impel us to plant more, the *L'Idéal*-like coloured varieties *Rene Andre* and *Paul Transon*, and the glowing *Ruby Queen* and many others, may all be grown as suggested, and, if so planted between towering pillar Roses, a most telling effect would be produced, especially if the season of flowering of *wichuraiana* and pillar Roses were arranged to harmonise. P.

BOOKS.

The Book of the Scented Garden.*—Most

of us who are garden-lovers have longed to explore the mysteries of scent—that strange elusive quality that so enhances our delight in plant and flower. Miss Jekyll in "*Wood and Garden*" has given us one charming chapter, and Mr. Robinson, in his "*English Flower Garden*," another on the subject, but one has always felt how much more might be said. Mr. Burbidge, in the little volume now before us, has sounded many of its depths, and not only

THE NEW HYBRID TEA ROSE DEAN HOLE.

(Photographed from a flower in Messrs. B. R. Cant and Sons' Nursery at Colchester.)



grown. I was gratified, because one who loves Roses must always revere the honoured name of the late president of the National Rose Society, and be anxious that a Rose bearing his name shall prove of some worth. I shall not readily forget the beautiful flowers that gained the gold medal of the National Rose Society in 1904.

It is true I thought then that the variety bore a rather close resemblance to *Maman Cochet* and Mrs. Edward Mawley, but subsequent experience has shown that it is perfectly distinct, and I am confident it will prove one of the most valuable

* "*The Book of the Scented Garden*." By F. W. Burbidge, M.A., V.M.H., F.R.H.S. Lond. John Lane's Handbooks of Practical Gardening. No. XXIV. 2s. 6d. net.

does he discourse with grace and sympathy about "the curious broth of smells that feeds and feds our mindes," but has shed the light of science so fully and brightly on the topic that one reads his pages with mingled gratitude and wonder; they contain so much that to most of us is absolutely new. It is impossible to peruse them without being convinced that smelling is a sense that ought to be cultivated a great deal more than it usually is. "Artists in sniffs can improve their talent by constantly exercising it." Scent is a power, and has a definite work. "If a full, true, and particular account of perfumes could be written to-day, I think," says Mr. Burbidge, "we should be a little astonished at the great and even tragic parts they have played at times in the history of the human race."

Nor is it to flowers alone that we must go for the sweet odours that bring us fragrance. The question of odorous leaves is just as important. "Next to the dynamics of plant growth, there is no unworked field of original research so attractive, and that promises to be so productive, as does this question of odorous leaves." The five senses are briefly considered, touch and taste being put first, but in the order of animal evolution Mr. Burbidge gives the third place on the list to smell. "Puppy-dogs," we are reminded, "find their mother by touch or scent long before they can see."

The sense of smell he thinks—and in this we cordially agree—is, of all our senses, the most subtle and difficult to regulate or measure, and it is least under our own control. "Sound may be analysed and set down in music; colour is and can be arranged in methodical form; but it yet remains for some specialist in odours to give us a gamut or scale, so to speak, of the thousand and one subtle whiffs of fragrance and the myriad of odour waves that bombard the delicate nerve centres of the mucous membrane of the nose." Dr. Piessé has attempted to do this, crudely perhaps, but with originality. "To make a proper bouquet of primitive odours, the kinds so used," he tells us, "should agree or correspond with a scale or gamut just as do the musical notes," and "one false note among odours would destroy the whole harmony of the chord just as in music or in colour." Here is his odophone or scent-scale for the chord of C; Sandal is C bass, second line below; Geranium is C bass, second space; Acacia is E treble, first line; Orange flower is G treble, second line; Camphor is C treble, third space.

No doubt some innate feeling—or shall we call it instinct?—guides us in making up even the simplest posy gathered in the garden, preventing us from putting together scents that would clash any more than colours that would quarrel. Some exquisitely scented flowers we feel at once must stand alone; not another can we find that is set in the same key, or sometimes we light on two or three distinct flower-fragrances that mix or contrast to perfection. Cape Jasmine and Honey-suckle scent coming in at the same window are perfect; Roses and Mignonette go happily together; but what goes well with Stock? Sweet Peas, too, are they not most enjoyable alone? and Heliotrope, that must go by itself, and so must Wallflower.

There are no more interesting chapters in the book than those which treat of essential oils *v. bacteria*, also as germicides, and as antiseptics. How many of us know that a strong scent will kill a typhoid bacillus? Even fewer could guess how quickly this can be done. Here is the time-table of some experiments which Professor Chamberlain made with typhoid bacilli, and the killing power of various essential oils; Cinnamon

of Ceylon, at the end of 12 minutes; Cloves, 25 minutes; Eugenol, 30 minutes; Thyme, 35 minutes; Thyme (wild), 45 minutes; Verbena of India, 45 minutes; Geranium of France, 50 minutes; Origanum, 75 minutes; Patchouli, 80 minutes; Zedary, 2 hours; Absinthe, 4 hours; Sandalwood, 12 hours. No one can now accuse us of being fanciful if we say a Rose has cured a headache. To all those who suffer from strong floral perfumes are recommended the more negative qualities of fragrant leaves.

"Perfumes and Temperature" is another branch of the subject that is good reading—so pleasant to learn that on a hot day sweet perfumes really cool the air as well as sweeten it. The absorption of heat by odorous vapours is proved (Professor Tyndall) by elaborate experiment. And there are further benefits; the burning of perfumes or incense in sick houses, hospitals, or churches is based, we find, on common sense. May the time come when more will be done for us in this direction in public places; scented draughts are such delicious things. Enough has been said to show the value of this little book; it is brief, but positively teems with interest, suggestion, and information. Its chief subject, as the name implies, is naturally the scented garden; it includes an A B C list of perfumes, essential oils, &c., and of the different plants which afford them. The moral of the book (for there is one) is as follows: "Let us, then, grow in our greenhouses and gardens all the fragrant herbs we can. Here is a taste that has come down to us from the foundations of human history; not a fashion like that of bicycles or bonnets, but a precious possession for all time." F. A. B.

THE FRUIT GARDEN.

NECTARINE IMPROVED DOWNTON.

MESSRS. RIVERS of Sawbridge-worth for the past three generations have rendered distinct and valuable services to British pomology by the raising and introducing of a large number of new and improved fruits, and especially have their services been valuable in the case



FRUITS OF NECTARINE IMPROVED DOWNTON. (Reduced.)

of the Nectarine. The number of new varieties of these sent out by this firm from time to time over a long series of years is so numerous that some of the older ones are in danger of fading away from the memory of present-day readers. Amongst them is the one here illustrated.

In association with new plants or fruits there is always the glamour of novelty, and more or less exaggeration which captivates the mind, and which, I am afraid, often invests new fruits and flowers with a merit beyond their real deserts. I am not saying this in order to detract in any way from the value of recently-introduced Nectarines, but I do so to emphasise the fact that some of the older hybrids of this firm are still among the very best, and the one under notice must be included in the list.

The old Downton Castle, as it used to be called, was a well-known and largely-grown standard variety. It is now occasionally seen on the exhibition table, and by its size and rich colouring always gives a good account of itself, but the Improved Downton, in my experience, is not so frequently seen, yet it is an undoubted improvement on the old variety. It resembles its parent in all its good points, but is larger, the tree more fruitful, the flesh richer, with a faint Stanwick flavour. It is specially to be recommended for outdoor wall culture. OWEN THOMAS.

NEW PEACH PEREGRINE.

MESSRS. RIVERS, at a recent meeting of the Royal Horticultural Society, staged the above new Peach in excellent condition, the trees staged being models of good culture and well laden with fine fruits. This new seedling appears to force most readily, and should become a great favourite on this account. It is a mid-season fruit, and, being earlier than Crimson Galande and its equal in productiveness, it is a most valuable introduction. The fruits are large, rich crimson in colour, and, most important of all, the flesh is rich and of splendid flavour. It forces excellently, the fruits set with great freedom, and for pot culture it is specially good. The

latter point should not be overlooked, as some of the older varieties are not so good in this respect. I have not yet given it a trial on open walls, but intend doing so this autumn. It should succeed well. The raisers give it a good name, and owing to its colour, which is most prominent some time before the fruits are ripe, it should be useful to follow the earliest varieties and prove a valuable market Peach. Last season even very small trees of this variety were heavily laden with fruit, and this year the crop is greater. This shows that the new seedling is reliable.

G. WYTHES.

NEW AND RARE PLANTS.

NEW SWEET SULTANS.

ONE of the most interesting exhibits at the meeting of the Royal Horticultural Society on the 1st ult. comprised the beautiful series of Sweet Sultans (*Centaurea*, Jarman's strain) shown by Messrs. Jarman and Co., Chard, Somerset. The flowers measured about 3 inches across, and were of varied and pretty colouring, some white, others clear and refined shades of yellow and purple. The strain is an exceptionally fine one, and well deserved the award of merit given to it.

SPIRÆA AITCHISONI.

THIS was shown at the first August meeting of the Royal Horticultural Society by Sir Trevor Lawrence, Bart. (gardener, Mr. Bain), and Mr. Maurice Prichard, Riverslea Nursery, Christchurch, Hants. The panicles are very dense, and the flowers are pure white, the plant having a foamy effect when seen from a distance. This *Spiræa* flowered at Kew in 1899, and it was discovered by Mr. Botting Hemsley, F.R.S., when examining the late Dr. Aitchison's dried specimens collected in the Kuram Valley, Afghanistan. It is named after the Doctor. It is an interesting garden plant.

SUMMER FLOWERS IN SOUTH DEVON.

MANY plants which must be grown in a greenhouse in the Midlands and the North flower freely outdoors in Devon. Abutilon vexillarium, from Rio Grande, has been bright through the month of July with its crimson and yellow, brown-stamened blossoms, and many greenhouse varieties, with red, yellow, white, and tessellated flowers, have been blooming well as bushes in the open garden. The African Lily (*Agapanthus umbellatus*)

and its white form have commenced their display, and the bright scarlet *Alonsoa Warscewiczii*, which is perennial in a warm garden, has provided brilliant colour. Masses

heterophylla have been in bloom, *Bravoa geminiflora* has borne its tall flower-scapes, and *Buddleia variabilis veitchiana*, a great improvement on the type, has perfected its rosy purple spikes, many of them over 18 inches in length. This shrub is an enormous grower, a plant only 5 inches in height in the spring of last year being now 10 feet high and 12 feet through.

Calceolaria integrifolia has been a sheet of bright yellow in numerous gardens, and the pretty little *C. mexicana*, an annual which comes up yearly from self-sown seed, has been very attractive. A large plant of *Campanula pelviformis*, which had over 100 expanded blooms at one time, has been a charming sight, its beauty being enhanced by a large bush of *Crassula coccinea*, with three dozen flower-heads, in full bloom by its side. The Australian *Candollea tetrandra* has produced its yellow blossoms, *Carpenteria californica* has continued in bloom, and *Cassia corymbosa* has just expanded its earliest flowers. *Chrysanthemum maximum Moonlight* is a fine variety, with flowers $4\frac{1}{2}$ inches across, quite eclipsing the Shasta Daisy hard by.

A large clump of *Cimicifuga racemosa*, with over a dozen flower-spikes 7 feet high, has been a most graceful object, the crimson bells of *Clematis coccinea* hanging from an arch have had a pretty effect, and, during the morning hours, a wide drift of *Commelina coelestis*, a cloud of Gentian blue, has been a lovely picture. Unfortunately, these flowers close soon after midday. The white variety is also grown, but is far inferior to the type. *Cyananthus lobatus* has clothed a ledge in the rock garden with its purple flowers, and *Cypella Herberti* is in profuse bloom. Great bushes of *Desfontainea spinosa* have been covered with pendent scarlet and yellow blossoms, *Dianthus Emilie Paré* has remained in bloom through the month, and *D. Atkinsoni*, *D. Napoleon III.*, and *D. Lady Dixon* have been very bright. *Dierama pul-*



SWEET SULTAN (JARMAN'S STRAIN).

(Shown by Messrs. Jarman and Co., Chard, Somerset, at the meeting of the Royal Horticultural Society on the 1st ult., and given an award of merit.)

of *Alstroemeria chilensis*, in colours ranging from cream to crimson, have been a beautiful sight, and *A. pelegina* and its white variety have both flowered well in the open. *Bignonia speciosa*, from Uruguay, has produced its long, trumpet-shaped, wide-mouthed lavender flowers against a south wall, and in the same garden *Boronia megastigma* and *B.*

cherrima, with its fairy flower-wands, has been very beautiful, the pure white variety being one of the loveliest flowers in existence. *Echium densiflorum* has bloomed, and a large shrub of the rare *Escallonia pulverulenta* has been freely set with white flower-spikes, *Fremontia californica*, which has a way of dying suddenly when of large size, has

produced its yellow cupped blossoms; *Fuchsia fulgens* has borne its long, scarlet flower-clusters, and the little *F. procumbens* its inconspicuous blooms, to be followed later on by large crimson berries.

Gaura Lindheimeri, a fine hardy plant not often met with, has been pretty, and the splendid *Gerbera Jamesoni* has continued its display of large scarlet, Daisy-like flowers, while of the *Gladioli* *G. Saundersi* has perfected its glowing bloom-spikes. The magenta-pink *Indigofera gerardiana* has flowered, but a far prettier relative is *I. decora alba*, now bearing its pure white bloom-panicles. The Mexican *Inga pulcherrima*, rarely seen in gardens, has borne, on a south wall, its scarlet flowers, resembling a short blossom of the Bottle-brush (*Callistemon*), and the lovely *Ipomœa rubro-cœrulea* is beautifying a warm wall with its large, pale blue flowers fully 4 inches across. *Lathyrus pubescens* has produced numbers of its lavender-blue flower-sprays; *Lavatera assurgentifolia*, sometimes a bush 7 feet in height, has borne its large white, purple-blotched flowers; *Lonicera Hildebrandti*, in a Torquay garden, has been covered with its giant, Honey-suckle blossoms; and the pretty *Lupinus Cruikshanki* has displayed its blue, white, and yellow flower-spikes. *Malvastrum lateritium* has been charming with its flesh-pink flowers marked internally with a carmine band, and *Sphæralcea munroana*, formerly classed as a *Malvastrum*, has covered a height of fully 10 feet of rocky bank with its pale red blossoms.

The beautiful *Mandevilla suaveolens* has borne its fragrant white flowers on wall and verandah; fine plants of *Michauxia campanuloides*, 6 feet in height, have been pyramids of white with their large Campanula-like blossoms; *Mimulus glutinosus*,

formerly *Diplacus*, and its crimson variety have been in profuse flower; and *M. cardinalis*, rarely met with in the present day, a plant between 3 feet and 4 feet in height,

with its cherry-red blooms, and the effective *Mutisia decurrens* has shown the splendour of its glowing orange flowers from the background of dark foliage of *Berberidopsis corallina*, also in flower, through which it climbs. *Pardanthus chinensis*, *Pentstemon cordifolius*, *Philesia buxifolia* (with its Lapa-geria-like blossoms), and *Primula obconica*, growing in the open all the winter, have flowered, and *Plumbago capensis* has expanded its earliest bloom-trusses.

Romneya Coulteri has been a magnificent picture with dozens of its great white blossoms, some 7 inches across, open at the same time, but the sight of the garden has been

Salvia dichroa, from the Atlas Mountains, a plant over 8 feet in height and 5 feet through, bearing about 300 purple-blue and white flower-spikes. *S. leucantha*, with its plush-like flower-heads, has also been pretty. *Solanum jasminoides*, entirely covering the roof of a shed by the high road with a sheet of gleaming white, has been an entrancing picture. *Tropæolum speciosum* has been brilliant in some gardens, and was especially effective clambering through a fence covered with *Solanum jasminoides*, its scarlet blossoms contrasting delightfully with the white of the *Solanum*.

S. W. F.

EDITOR'S TABLE.

SEEDLING CARNATION HUNTSMAN.

Mr. George Armitage, The Nursery, Carlton Lane, Guiseley, near Leeds, sends a very bright self crimson-coloured Carnation named Huntsman. It must be a very effective variety.

KITAIBELIA LINDEMUTHII.

Mr. Gumbleton sends from his garden at Queenstown, Ireland, flowers of a pretty pure white shrubby *Malvad* with golden variegated foliage, which arose through grafting the plain-leaved type on the variegated *A. megapotamicum*. It is a most interesting plant.



SPRAY OF SPIRÆA AITCHISONI.

Shown by Sir Trevor Lawrence, Bart., and Mr. Maurice Prichard at the meeting of the Royal Horticultural Society on the 1st ult., and given an award of merit.)

has been a striking sight with its branchlets studded with crimson flowers, while *Modiola geranioides* has brightened the rock garden

with golden variegated foliage, which arose through grafting the plain-leaved type on the variegated *A. megapotamicum*. It is a most interesting plant.

GARDENING FOR BEGINNERS.

SIMPLE HINTS.

MAKING A LAWN WITH SEEDS
Prepare the ground now by deep digging and manuring, taking out all roots of perennial weeds, and then leave it till the middle of September to settle, but not later.

Then make the surface perfectly smooth and level, and run the roller over to make it firm. Sow a good mixture of grass seeds obtained from a good source very thick. Rake in and roll, and if possible scatter over the surface a thin dressing of manure from an old hot-bed, broken up and screened, using the fine material only, which will give splendid results. Under a covering of this kind the seed escapes the attention of the birds and germinates in a few days, and by next spring will have made a good lawn. We have used moss litter manure for the same purpose.

Furnishing the Lawn.—If the lawn comes up to the house, which it generally does, there should be a few beds of flowers under the windows, but beyond that the tree planter should work, filling in the background either as a blind or wind-break, leaving vistas through to view special objects, such as a church tower, a river, or woods in the distance. Clumps or groves of Austrian Pine or Scotch Fir always give one an idea of shelter and warmth, and a healthy odour escapes from a Pine wood. A good walk may run round among the shrubs and trees, open places being left in suitable positions for creating special features. These may include groups of Roses, flowering shrubs, and hardy things generally, including Ferns, alpenes, and, if possible, a Lily pond, with Japanese Primroses in large tufts on the banks. A garden of the kind which came under my notice last year was entered under a

Pergola covered with Climbers of various kinds, including many Roses. Even without the pergola, which, if well constructed, becomes expensive, there may be arches of Roses and poles covered with Roses and other suitable plants. Then no lawn is perfect without a few good specimen trees about it, and some of these should be conifers. The green and glaucous varieties of the Atlantic Cedar are always effective, but *Abies pungens glauca* is one of the most beautiful of the glaucous-tinted conifers for lawn planting. *Picea Pinsapo* (the Spanish Silver Fir) is also excellent. The Cedar of Lebanon is a splendid hardy tree for any conspicuous position. Half-a-dozen varieties of the Lawson Cypress, planted at suitable distances apart to form an open group—to individualise, so to speak, each variety—but I may say do not plant anything in lines or at measured distances apart. In discussing this matter with a noted tree-planter, he said it was better to take a shovelful of Potatoes or stones, cast them into the air, and plant where the Potatoes or stones dropped. This he called the "natural method," and any one in doubt where to plant may adopt it; at any rate, in tree planting for effect the planter should possess an artistic eye. For giving shade the Tulip Tree is excellent, and the Walnut in some cosy recess will suit the student who wants to read in peace, as insects are not so troublesome under a Walnut as under other trees. To give colour there is

the Purple Beech, Silver Maple, and various forms of Golden and Silver Hollies.—E. H.

Some Herbaceous Lobelias.—Rather more than a year ago I bought a collection of these hybrid Lobelias. Some are very good, and will make nice groups in the borders. I always think those raisers of new things who send out sets of a dozen or so would find it answer their purpose better to bring the dozens down to half-dozens. Many years ago when French nurserymen sent over here sets of new Roses a number always were included that soon found their way on the rubbish heap, and no one buys sets of new French Roses now; in fact, better Roses are being raised at home. Among the herbaceous Lobelias I have the following half-dozen will be found useful: Purple King, Prince of Bedders, Mulberry, Ensign, Multiflora, and Princess are good, and as they are easily propagated they will soon be cheap.—E. H.

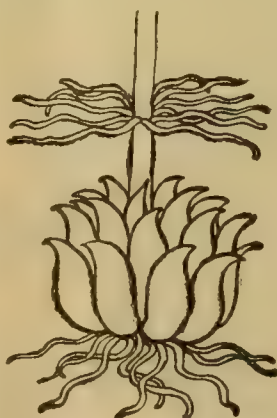
Lilies.—Deep and Shallow Planting.—There are two matters connected with Lily growing whose importance is often overlooked, and to the neglect of which many failures may probably be ascribed. One is the right depth of planting, and the other is neglect in giving due protection from

admired in the parks and private gardens during the last season or two. When required for outdoor decoration it is necessary to keep the old plants from year to year, which is a very easy matter, as they may be wintered in any shed or cellar that frost does not reach, but as they are woody they must not be kept too dry at the root, the proper thing being to have the soil just moist, and then the main stems and branches will keep plump and live.

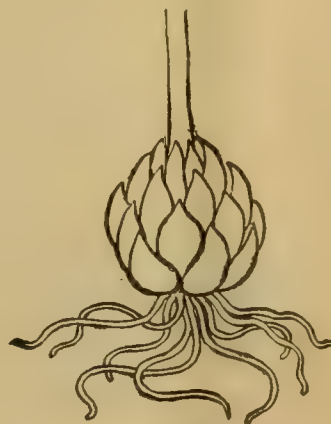
The Hollyhock.—This stately plant has flowered admirably this season. No disease was apparent until July, when the fungus appeared, and has spread rapidly since that time. This insidious disease seems to lie in wait for suitable weather, when it spreads over the plants, destroying the leaves very rapidly. Condy's Fluid applied to the affected part will destroy it. See that the young plants propagated from eyes or cuttings are kept clean, and replant each when well rooted in a 3-inch flower-pot. Remove all decaying flowers, else they will cause the seed-pods to decay. Plants for late flowering should be freely watered and syringed if the weather continues hot and dry.

Roman Hyacinths.—It would be interesting to know how many tons of these are annually disposed of in the markets of our large towns and florists' shops generally. They always give just what we need—a plentiful supply of white flowers at a season when Chrysanthemums are going past and other white flowers are still scarce. One has only to look at the church decorations and wreaths and crosses made during the first two months in the year to realise what an important position the Roman Hyacinth occupies among white flowers at that season. It may truly be regarded as a benefactor to florists and others, for it enables them to supply white bloom in the dead of winter at much lower prices than they could otherwise do, thus inducing many to buy flowers who could or would not purchase more costly things. Frequently in February I have

known a fair-sized bunch of Roman Hyacinths to be sold for twopence, and not so many years ago the same amount of white bloom would have cost more than six times that amount. It is, of course, the imported flowers that bring down prices to such a low point, and the home grower has no chance of profitable returns unless he forestalls the season of imported bloom. In the Chrysanthemum season there is such an abundance of white bloom, and, as this now lasts quite a month longer than formerly, the need for other things is but little felt until the new year is well in. From the middle of January to the end of February flowers of all kinds are scarce in the London markets, and during that period Roman Hyacinths make fair prices, especially if the weather is not very favourable when they are grown largely in the open for export to this country. For an early supply of bloom it is desirable to get the bulbs potted as soon as they can be obtained, and if a succession of flowers is desired through the early months of the year, more bulbs must be potted at intervals of a fortnight up to October. Half-a-dozen bulbs may be put in a 6-inch pot, but where any quantity of bloom is desired boxes are best, this



LILY THAT MAKES STEM-ROOTS,
SUCH AS *L. AURATUM*.



THAT MAKES NO STEM-ROOTS, SUCH AS
THE MADONNA LILY (*L. CANDIDUM*).

spring frost. As a rough rule a Lily is planted at a depth represented by three times that of the bulb, except in the case of *L. giganteum*, which is planted barely underground. But Lilies have two ways of throwing out roots. Some of them, including *candidum* and all the Martagons, root only at the base of the bulb. In a great number the bulb makes its first growth by the help of the roots from its base, known as basal roots, but as soon as the stem begins to rise it throws out a fresh set.

Hoe v. Rake.—Never use the rake except for preparing seed-beds. The hoe is a much better tool. The rake seals up the pores of the soil, and this is set fast after the first shower. The Dutch hoe leaves the surface loose and open. This checks evaporation, and so keeps the moisture in the land. A close sealed-up surface soon cracks, and the moisture evaporates.

Fuchsias in the Summer Garden.—Of late years Fuchsias have been employed for bedding or planting out, and they make grand ornaments either alone or in groups, and have been much

being the method generally adopted in market gardens. The boxes when filled are placed in the open air and covered with several inches of ashes or cocoa fibre, being put into warmth in batches as required. Sometimes bottom-heat is employed, but in a general way it is found that satisfactory progress is made without it. If the house be well provided with piping, there is no difficulty in maintaining a temperature sufficiently high to thoroughly warm the soil through. For Roman Hyacinths I like the compost rather lighter than what is in favour for Hyacinths generally. As they have to be brought along at the dullest time of the year, it is of importance that root-action should be encouraged as much as possible. With a liberal addition of leaf-mould and river sand, there will be less danger of the roots becoming torpid, and water may be more freely applied without fear of bringing the compost into a close condition. Plenty of moisture must be given when the flower-spikes are pushing up, but in the depth of winter heavy waterings should be avoided.—C.

Some Wall Shrubs.—Very pretty now is a 12-foot wall covered with several varieties of *Ceanothus* permitted to grow rather loosely from the walls. *Berberis stenophylla* is a splendid wall plant. *Escallonia macrantha*, *Garrya elliptica*, *Euonymus radicans variegatus*, and *Forsythia suspensa* are all good and reliable, and may be planted where the wall must always be in condition. Prepare the border and add some fresh compost before planting.

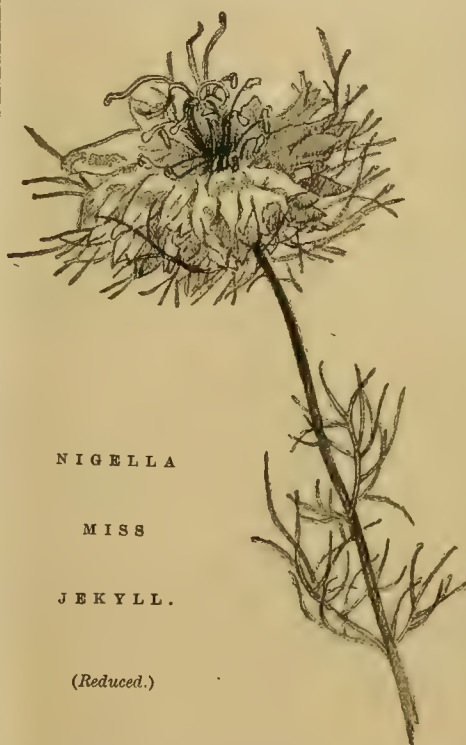
Carnations and Picotees.—Layering has been completed for some time. As soon as the plants have become sufficiently rooted they may be removed from the parent plants, and should be planted out where they are to flower. The soil ought to be well prepared previously by trenching it, adding some rich manure, and if the ground has grown Carnations previously it should have an addition of good loam added to it. Place a layer of manure about 6 inches under the surface, and over the manure a layer of virgin loam; it must be free from wireworms, for this voracious pest will soon destroy the finest specimens. We have planted out the principal lot of seedlings which have been produced from seed sown the first week in April. They are growing very freely, but have needed a good deal of attention as regards watering. A considerable number have not yet been planted out, but they have twice been planted in boxes, and are now stronger than those put out two months ago. We are now preparing ground for them, and they will be planted out probably before this is in print. The plants have been checked in their growth this year by thrips, the Carnation maggot, and green fly. All these depredators have had to be disposed of one after the other, but the plants were much crippled, and have now only started into good growth. We like to see good strong specimens, so that the layers may be abundant the year following. We have layered seedling plants this year with as many as sixty strong layers upon them, which gives one a good start for next season. Weakly plants will sometimes give less than a dozen layers.

Two Sure-bearing Plums.—This is a season to test the bearing qualities of fruit trees, and those trees which bore well last year, and, in fact, bear well every year, are worth planting in duplicate. These are *Victoria* and *Gisbournes*. The *Victoria* is a well-known red Plum, but *Gisbournes* is a yellow Plum, perhaps not so well known, but for jam making and as a cooking Plum it is unequalled.

Gage Plums.—Some of the Gage Plums fail in some districts and are very disappointing. A gentleman of my acquaintance some eighteen years ago planted a lot of the old Green Gages, and after failing year after year, acting on advice, has decided to remove the trees of the

old variety and plant the early and late transparent Gages and Oullin's Golden Gage. A few of the old trees will be regrafted as an experiment, but for the most part, as Plums soon come into bearing, young trees will be planted.

Nigella Miss Jekyll.—This is a lovely flower, deeper than the type and of larger size. It is an



easily grown annual, and seed may be sown both in autumn and spring. Its pretty flowers veiled in bracts are useful for cutting.

GARDENING OF THE WEEK.

FLOWER GARDEN.

HYDRANGEA HORTENSIS varieties are about the showiest of shrubs in full bloom at the present time, so every encouragement should be given them to develop their great heads of blooms perfectly, and to keep them in as fresh a condition as possible until as late in the season as the weather permits. With this end in view, see they do not suffer from want of water at the roots, alternating clear water soakings with diluted farmyard liquid manure, or instead, a weekly sprinkling of a good artificial manure. I have no experience in applying "nostrums" to the plants with the intention of producing the desired blue tint to the blooms, and have no faith in them. Most of ours are a beautiful blue shade as the plants increase in size and age. Those occupying sunny positions will be greatly benefited by a thorough syringing in the evening after a hot day; it freshens the flower heads wonderfully. Under these conditions the heads of bloom are very enduring and lasting, so that there will be but few faded blooms to pick off until frost nips both bloom and foliage.

FUCHSIAS.—*Riccartoni*, *gracilis*, *globosa*, and such are also bright with bloom, and need little attention further than to apply copious waterings when necessary. If neglected, the blooming season will be materially curtailed.

HYPERICUM MOSERIANUM is another beautiful August-flowering shrub, and associates well with both the preceding. It is not fastidious as to soil providing that it is not too wet, cold, and heavy.

OLEARIA HAASTII is another desirable shrub now in full bloom, perhaps not quite so showy as the foregoing, but is nevertheless very effective in groups and specimens, skirting a wood or fringing the shrubberies. It has also the additional merit of being evergreen.

LEYCESTERIA FORMOSA is very interesting and pretty, with its chains of pendant reddish purple bracts, from the folds of which tiny white flowers appear; following these closely, and nestling under the outspreading bracts, are oval-shaped berries in the various stages of colouring. The *Leycesteria* is quaint, distinct, and easily grown, all its

requirements being a rich, fairly light soil, and cutting down to within a few eyes of the base every spring.

CEANOTHUS AZUREUS is another shrub which flowers freely through the greater part of the summer when trained to a wall or grown as a bush in the open. I have selected the above half-a-dozen types of shrubs as suitable for planting in association with each other in various ways and combinations, for all are free bloomers, flower about the same time, and continue in beauty over a very long season, each distinct in both leaf and flower, and each will need sheltered positions in cold, bleak districts. To ensure luxuriant growth and satisfactory bloom they require well-enriched soil, of a free nature, in warm and fairly sunny situations. For variety, distinctness, and effect they will prove both interesting and attractive throughout August and September, and some of them even later, and at a season when good-flowering shrubs are not over-plentiful. I draw attention to them now so that sites may be cleared—if need be—and prepared for them during the coming autumn and winter.

The Gardens, Tan-y-bwlch, North Wales. J. ROBERTS.

INDOOR GARDEN.

PELARGONIUMS.—Prune back the show and regal varieties to within three or four buds of the current year's growth. Stand in a frame and begin syringing in about a week to induce them to break. When new shoots begin to push, shake off all the old soil, trim the roots, and repot into a size or two smaller pot. Use a compost of three-parts fibrous loam and one of leaf-mould, adding a little dried cow manure and plenty of silver sand. Keep rather closer for a few days, syringing as before.

ZONAL VARIETIES.—The most forward plants on which the buds are expanding may be transferred to a house where they will get as much light as possible and plenty of air. The main batch must be transferred to a frame as heavy showers of rain are often experienced this month. Keep the lights near at hand so that they can be easily put on during bad weather. Do not stop the points of the shoots any more, but the buds may be removed till the end of the month. Give manure water twice a week.

ROSES.—These can be repotted or top-dressed as required. The plants repotted not being so satisfactory for early forcing, a portion only should be repotted each year. If the soil is in good condition, remove as much of the old soil as possible without injuring the roots, potting into a slightly larger size. When the soil is in bad condition, shake it all off the roots, prune them if necessary, and repot into a smaller size pot. Use a compost of four parts good fibrous loam, one part leaf-mould and well-decayed manure, coarse silver sand, a little bone-meal, and soot. For top-dressing add more manure to the compost in proportion. Prick over the surface of the soil with a label, removing the loose soil. See that the drainage is in good condition. Any weakly or sickly plants should be planted in the open ground or thrown on the rubbish heap. Place a small label or peg in the newly-potted plants for a guide later on when selecting plants for early forcing.

OUTSIDE PLANTS.—September is with us, and it will now be necessary to attend to the potting up of the *Bouvardias*, *Solanum Capsicastrum*, and *Richardias* planted outside. A week or ten days previous to lifting chop round the plants with a spade, severing the roots from the plants for which there will be no room in the pots. This will prevent the plants feeling the moving so much. The day before lifting give the plants a good soaking of water. In transferring to the pots be careful not to break the balls of soil.

GENERAL REMARKS.—Plenty of cuttings can be obtained from the *Fuchsias* cut back for the purpose as advised in a previous calendar. A hot-bed is the best place to root them, but if this is not available place them in a close propagating frame, preferably with bottom-heat. Use 5-inch pots with plenty of drainage, and insert fairly thickly in light, sandy soil. The early batch of *Mignonette* is ready for thinning if sown in the flowering pots. Spread the work over a week or two rather than this all at once. Prick off if sown in a seed-pan. Pot up another batch of *Freessias*. Give the early *Salvia splendens* in the house plenty of room and all the sunlight possible to develop the bracts.

Royal Botanic Gardens, Kew.

A. OSBORN.

ORCHIDS.

MILTONIA VEXILLARIA.—Plants of these well-known Orchids having commenced to grow should be examined to see if any of them require repotting. Those plants that are in a satisfactory condition as regards health, and are in pots of a suitable size, and the compost is in good condition, need not be disturbed now, the early months of the new year being preferable for the operation. In most collections some plants will have deteriorated, either through over-flowering or from various other causes. Such plants will require immediate attention. Turn the plants out of their pots, and pick out all the old compost. Cut off all dead roots, and it is advisable to look carefully around the base of each plant for wood-lice, as frequently numbers are to be found concealed among the short dead roots which were left on the plants last season. As a rule, *Miltonia vexillaria* prefers plenty of surface room for the roots to ramble in, but such delicate plants should be placed in small pots, and these should be filled with clean crocks to about three-quarters of their depth, over which place a layer of sphagnum moss.

The compost should consist of three-quarters of sphagnum moss, one quarter fibrous peat, a little leaf-soil and silver sand, also a small quantity of small broken crocks well mixed together. After repotting, and for several months to come, water should be given sparingly.

Merely sprinkle the compost around the edge of the pot with a fine rose watering-can to induce the sphagnum to grow and new roots to penetrate into the fresh compost.

With proper care and attention these sickly plants will by next spring require repotting into pots at least two sizes larger. Choose a shady position in the cool house for them, as the leaves soon shrivel and change colour if too much exposed to the light. The plants that are healthy may have a little of their old surface moss removed and fresh sphagnum put on, this being done principally as a guide for watering until the time comes for repotting them. The summer-flowering varieties, as *M. v. rubella* and *M. v. superba*, will not require attention until the middle of next month. *M. v. Leopoldii* is now flowering, and is worth adding to any collection. *M. Endressii* and the beautiful hybrid *M. bleuana* and its variety *nobilior* are now in full growth. These should be in the intermediate house, and where they can obtain plenty of fresh air at all times. *M. vexillaria* and its varieties will be quite at home in the coolest house for the present, but when the nights are becoming cold they should be removed to the intermediate house. Such Orchids as the

SOBRALIAS are not generally cultivated, but at Burford, where a number of species and hybrids are grown, they have been one of the principal attractions for several weeks past; in fact, some of them have been in bloom for at least three or four months. All of the *Sobralias* are strong-rooting plants, and require plenty of pot room. Those which have become pot-bound should be repotted, or specimens that have grown to an inconveniently large size may be divided at this season. Well drain the pot, and use a compost consisting of rough, fibry peat and sandy yellow loam in about equal parts, a moderate quantity of sphagnum moss, and small broken crocks. Mix the soil well together, and pot rather firmly, but not so hard as to prevent the water from perforating freely through the compost. Keep the soil about half an inch below the rim of the pot for water, a good deal of which is required during the growing season. After repotting water the plants with care and place them in a light position in the intermediate house. Large, well-rooted specimens that do not need repotting should be well supplied with water at all times, and by syringing well up under the foliage two or three times a day during warm weather they may easily be kept free from insect pests, which, if not eradicated, will quickly disfigure the leaves. As the plants become re-established and the new shoots are about 18 inches or 2 feet in length, cut this year's flowering growths down to the roots, and tie out the new growths so that light and air may pass freely between them.

Burford Gardens, Dorking.

W. H. WHITE.

KITCHEN GARDEN.

FRENCH BEANS.—We are now approaching a period when delicacies in the form of appetising vegetables will be scarce. Green Peas in the course of a few weeks will finish their season. Fortunately, however, French Beans form an excellent substitute, and in the majority of places various methods are adopted to grow them after the outside crop is finished, and some of these should immediately be put into practice. Very fair supplies can be obtained from French Beans planted in 9-inch pots and grown in heated pits. Better supplies, however, both as regards quantity and quality may be forthcoming if a Cucumber or Melon house, where the crops are now over, is prepared for French Beans. The climbing varieties are decidedly the best, and the soil that has grown the Melons or Cucumbers, with a little artificial manure, constitutes a first-rate soil in which to grow them. Make sure first that the roof and all wood-work is thoroughly cleansed, and the surface of the bed removed to ascertain that no vermin is present in order that future trouble with insect pests may be avoided. During the spring months climbing French Beans are much aided by a gentle warmth at their roots, and if the structure they grow in is provided with bottom-heat so much the better. Watering will require careful attention, but if the plants have become a good size before the days are very short a long and prolific season will be the result. Besides training the climbing Beans up strings, as recommended in the calendar for February 11, I have on several occasions had very good results from growing them in 10-inch pots and supporting them with some ordinary Pea stakes about 2½ feet high. If three-twigs pieces of stake are thrust into the soil of each pot and tied at the top with a piece of string, a good conical trellis is immediately formed to which the runners will cling.

CABBAGE.—Plots of ground—one portion on a sheltered border for earliest supplies, and another on a well-exposed yet sheltered piece of ground in the open for second supplies—should now be made ready for growing the Cabbages that are to be cut next spring. Cabbages are sometimes grown on ground that has just been cleared of the Onion crop, but better ones can be grown on ground properly prepared for them at this time. The Onion being a gross feeder, it happens that very little food is left in the soil where Onions have been grown for any succeeding crop. Cabbages, like Lettuces, if not grown quickly when their season of growth arrives, are apt to be tough and stringy, and consequently lacking the crisp and juicy hearts which are expected. Let a piece of ground where Potatoes have been grown, and that was well limed last spring, be forked over, so that no Potatoes are left in the ground. A good dressing of soot all over the plots of ground where the Cabbages are to be planted, and stirred in with the digging-fork just before planting, will be beneficial to their future well-being, as this acts as a manure and helps to keep slugs at bay.

PEAS.—Where young Broccolis, autumn Cauliflowers, Brussels Sprouts, &c., are growing between the rows of

Peas, the latter should be removed as soon as the Pea crop is over, in order that all the Brassicas may have full advantage of all available light and air. Let the old Pea haulm be cleared away to the rubbish heap to be burned, in case any mildew may be about.

J. JEFFREY.
The Gardens, St. Mary's Isle, Kirkcudbright.

FRUIT GARDEN.

LATE VINES.—So far this season has been greatly in favour of late Grapes being well finished. Very little fire-heat has been needed; on the contrary, there has been much difficulty in keeping the houses from becoming too hot, consequently the Grapes are showing a tendency to become ripe at an earlier date than usual. Great care will be needed in ventilating and heating the house till the Grapes are cut. The pipes must not be heated to excess, neither must the temperature be allowed to rise too rapidly before increasing the ventilation, or the berries will not remain long in a plump condition after they are ripe. Less moisture will be needed now, both at the roots and in the atmosphere, but on no account must the border be allowed to become too dry, as this will cause the berries to shrivel. Pinch out all laterals as they appear.

GATHERING AND PROTECTING FRUIT.—In this month much attention must be devoted to gathering and protecting all kinds of fruit. With most crops below the average more stringent measures will be needed to prevent the depredations of the hordes of insects and birds which abound at this season. Unfortunately, cold winds and late spring frosts have no effect on these pests, so that with less fruit for them to attack the amount of damage will appear in much greater proportion than usual. Peaches and Nectarines especially must be well protected. Fish-netting hung over the trees will keep off birds. Earwigs may be caught in dry Bean-stalks placed about the trees. These should be examined every morning, blowing the insects into a bottle half-filled with water. Wasps and flies may be attracted into jars half-filled with sugary water and vinegar. The nests of wasps must be looked for and destroyed. Before fruit gathering becomes general the fruit-room should be thoroughly cleansed. Limewash the walls, and remove old straw or anything that may create an unwholesome atmosphere, which in time would be imparted into the flavour of the fruit. Gathering should be done carefully and methodically. The best fruits should be placed in single layers on trays and taken to the fruit-room without delay. Bruised fruits should on no account be placed with sound ones, but should be laid aside for immediate use. In dull or wet weather Peaches should be gathered before they are quite ripe and placed in a warm house, which will improve the flavour. Peaches that are needed for preserving should be gathered before they are quite ripe and placed in a cool room. Over-ripe fruits are quite unsuitable for preserving purposes.

E. HARRISS.

Fruit Department, Royal Gardens, Windsor.

THE KITCHEN GARDEN.

LATE-PLANTED VEGETABLES.

[In reply to "W. J. W."]

IT frequently happens that planting is delayed owing to various causes; for instance, during a long spell of hot, dry weather the planting may have been delayed, but, done at once, the warm, moist earth forces growth and the plant soon makes headway. It should be borne in mind that it is not always the largest plants that stand a severe winter, as frequently we plant Brussels Sprouts late for the latest supply, and these plants are less injured than larger ones. Brussels Sprouts if strong will give a good return; the Sprouts will be small but good, and as hard as possible, and the plants could go much closer. Again, take other Brassicas, such as Kales or Cabbage of the Savoy type; both these make rapid growth if in rich soil and with ample moisture. When required, these late-planted seedlings will give a good return. We are asked what may be planted, and, as our correspondent lives in a favoured spot in Cardiganshire, even now French Beans may be sown on a sheltered border, using a variety that matures quickly, such as Syon House Improved, Ne Plus Ultra, or Mohawk. Any of these will supply pods within six weeks, and are easily given shelter on cold nights. Treated thus, good produce may be had until the end of October. In a kitchen garden much may be done by manurement or a little care; for instance, Cabbage planted now should give a good return in the autumn. There will be no difficulty whatever now in securing a full supply of Coleworts and Cabbage The Rosette for early winter, and the Hardy Green for use after the new year. These

may be planted in quantity in rich land. The first-named will be ready by October, and few green vegetables are more delicious. Owing to their quick growth they are equal to the early spring Cabbage. They require very little room—15 inches each way, or even less. There are other excellent little Cabbages, such as Little Gem, that will keep good well into the spring. These now may be more difficult to secure, but this is just the season for the Colewort. Spinach should be an important factor in the supply from October to May. In your locality this should do well, and Spinach, apart from its value as a green vegetable, is so distinct from the Brassicas that it should be largely planted in all gardens. It has good medicinal properties, and may be eaten where other vegetables are forbidden. Sown now on well-dug land, using soot and lime freely, it will be ready for use in two months. The best variety is The Victoria or The Carter. Both are round-leaved varieties. Leeks planted now will be most useful for use after Christmas, and, though not large, they will be good. They need not occupy so much space. We plant for late use in rows 15 inches apart, and half that distance between the plants. Of course, it is too late to sow, but plants are procurable.

Now is the time to sow winter Onions of the White Spanish or Tripoli type. The young plants may be used in a green state, and the main crop is invaluable for spring supplies. Sow thinly and in an open position. Salads should find a place in all gardens as adjuncts to the vegetable supply. Though now fully late to sow Endive, small plants winter well of the Round-leaved Batavian and Green Curled varieties. Sown thinly in rows and then thinned, the plants will not be at all poor if the land is good. Lettuce sown now will soon make good material for the salad bowl. Sow a quick-heating variety, such as Golden Queen, for use in September, and the Hammersmith Hardy Green for winter. If a Cos variety is liked, sow Hicks' Hardy or Bath or Brown Cos; the first-named for early autumn use, the latter for winter and spring. Celery may be planted any time this month if you can secure good seedlings, and, though the plants will not be large, they will be sweet and useful, and keep good well into the spring. The plants will do well if given ample moisture at the start.

We now come to roots, and these will not be numerous, as the majority require time to perfect growth. You may yet secure small Beetroot if such sorts as the Crimson Ball or Globe type are sown on an open border in good soil. Carrots of the Short Horn section, Early Nantes, or Scarlet Horn sown now will give good roots for use all through the winter. These are quite hardy, and if sown in light land, well dressed with soot and lime, will be good till May, and may be drawn as required for use. Turnips sown now will give a winter supply, and such sorts as Red Globe or Golden Ball will be found useful. The last is a very hardy root, and will keep sound until the spring. In addition, late-sown Turnips give a good supply of green tops, which may like early in the spring months. Red Globe is one of the best for autumn and midwinter supplies. Sown thinly and thinned early the roots will be fit for use in October. The above are the most important winter and spring vegetables.

FRENCH BEANS IN AUTUMN.

TOWARDS the end of September choice vegetables are getting scarce, and those who like French Beans to be served as long as possible can secure a much later supply by sowing in August. In the southern part of the country, with a rich root-run and protection in the shape of canvas or tiffany when the nights are frosty, the supply may be had for a considerable time. In our own case we adopt two courses. A good sowing is made on a sheltered border, and another one towards the end of the month in frames. The plants in the frames are grown as hardy as

possible, the sashes not being used till the weather is cold. This done the plants are sturdy, set freely, and give a supply till the end of the year. Few vegetables make a quicker growth than the French Bean if the soil is warm and favourable to germination, but at the latter part of the year, with short days and little sun-heat, even when grown in heat under glass, the return is not great; indeed, there are many failures, but earlier, if a strong plant is secured and the crop set, the pods will swell if a little attention is given in the shape of heat and moisture. Many are unable to spare glass at the season named, so many things requiring shelter, and here a few dishes may be had by sowing on a sheltered border much in the same way that an early crop would be sown in the spring, but I should add that even in the south and west there should be no delay, as the plants should be strong and set freely before frosts occur. In the early autumn it often happens that we get a frost, and no more for weeks after. Here the plant will be valuable if the crop is covered at night with canvas or sheeting of any kind, and on a narrow border this is soon done. We place wire on short posts, and covering is soon done, but this should be removed early in the day.

In the northern part of the kingdom I would advise frame culture, though near the coast I have gathered French Beans from a warm border in November. So much depends upon the soil and situation. In a heavy clay or wet soil this system would not be advisable. If the plants can be sown any time in August and a little warmth given in the shape of hot-water pipes later on, frame culture is most profitable, provided the seeds are sown sufficiently early to get a good set before the dark days set in.

The usual time for plants to mature pods is from six weeks to two months, and this must be taken into account when sowing. To sow in September or October would end in failure. I am aware many grow plants in hot houses in November and December, but I have never seen a really good crop at that date. The plants grow freely, but the flowers drop, hence the necessity of a good set at the time named.

Our best late Bean grown in frames for December supply was Early Gem, a seedling from the well-known Syon House and Mohawk, or Six Weeks is also excellent. It is a quick grower, a larger pod than Syon House, and most productive. This was sown late in August, and grown as hardy as possible. Veitch's Early Favourite is also a splendid Bean for this work; indeed, any early sort is suitable if dwarf and productive. When grown in the open, I mean on a sheltered border, there should be ample room between the rows, and in the row there must be no crowding of plants, as at the season named air must at all times circulate freely. This also applies to the frame culture.

G. WYTHES.

LEGAL POINTS.

SETTLED LAND ACTS (Tenant for Life).—Settled land may be sold or leased by the tenant for life. Ordinary leases may be granted for a period of twenty-one years, building leases ninety-nine years, and mining leases sixty years. A tenant for life when exercising his powers is in the position of a trustee for all parties entitled under the settlement, and must have due regard to their interests. He must sell at the best price and lease at the best rent that can reasonably be obtained. Every lease must take effect in possession not later than twelve months after its date. Except in the case of leases for twenty-one years, a tenant for life cannot exercise his powers unless there are trustees of the settlement for the purposes of the Settled Land Acts. Trustees having a power of sale are trustees for the purposes of the Acts. If there are no trustees the Court will appoint trustees on the application

of the tenant for life. The expense of such an application is usually small. Before the tenant for life can exercise his powers he must give notice to the trustees of his intention to do so, but the notice may be of a general character. The principal mansion-house and the lands usually occupied therewith cannot be sold or leased by the tenant for life without the consent of the trustees or an order of the Court, but this provision does not apply where the principal mansion-house is usually occupied as a farm-house or where the site of the house and the lands usually occupied therewith do not together exceed twenty-five acres. The property of an infant may be sold or leased under the provisions of the Settled Land Acts by the trustees of the settlement or by some person appointed by the Court to exercise on behalf of the infant the powers of a tenant for life.

FIRE (L. C., Brighton).—If a fire commences on A's property, and B's property is injured in consequence of it, B cannot recover damages against A if the fire was accidental. If, however, the fire was due to the negligence of A or his servants, B may recover. Railway companies are not responsible for fires caused by sparks from their engines if they have taken every precaution known to science to prevent injury. They are only liable if guilty of negligence. Where, however, a locomotive or traction engine is used on a highway, the person using it is liable for any fires occasioned, as the Acts of Parliament regulating the use of such engines expressly reserve the right of action for any injury they may cause.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, W.C. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

Legal Points.—We are prepared to answer questions of law which have anything to do with the subject of gardening and forestry. The questions should be as clear and explicit as possible, so that there can be no doubt as to the point of the question. Answers will be found in a separate column headed "Legal Points."

INSIDE v. OUTSIDE VINE BORDERS (G. W. B.). By all means plant your Vines inside, especially if you are planting Muscats, as by so doing you will have full command of the roots, prevent shanking, and be able to feed better. There are also several other advantages. Vines inside are more trouble to water, more being required.

HARDY BORDER CHRYSANTHEMUMS (Veld).—Both Horace Martin and Rye-croft Glory are unduly tall if the plants have attained a height of nearly 5 feet. From what you say we think you must have planted them in a very rich soil. Rich and heavily manured ground invariably promotes coarse and rank growth. You may have watered your plants freely during spells of hot and dry weather, and this is unnecessary. We have these plants growing in our collections, and they are less than 3 feet high. They seldom attain a height of more than 3 feet 6 inches. The secret of keeping these plants dwarf and sturdy is to plant them in not over rich, or, as we prefer, poor soil. The planting, also, should be

done firmly. Manure water should be applied freely when the buds are set and growth is almost finished. When outdoor Chrysanthemums are pinched they (the shoots) are so liable to break out from the main stem; we therefore discourage this treatment.

CHRYSANTHEMUM BUDS (Anxious One).—Your Chrysanthemums are doing all that is required of them if they are now developing buds as the result of pinching the plants in mid-June last. The bud you refer to as appearing in the centre of several shoots is known as a crown bud, and to secure, or what we generally describe as to retain, these crown buds, the young and tender shoots which surround each bud should be removed, and with the greatest care. As soon as all the surrounding shoots are removed, the bud is left quite alone at the apex of the long shoot, and it is then retained. The latter part of August is an excellent time to retain most buds. You are therefore doing very well with your plants.

THE BEST TWELVE PELARGONIUMS (Aberdeen). As individual tastes vary to a very great extent, it is a very difficult matter to name a dozen of the best single-flowered zonal Pelargoniums and half that quantity of the double forms. Still, the following are all of the very best and quite distinct: Single—Comtesse of Buckingham, pink; Cyclops, violet-carmine, with large white eye; Duke of Bedford, rich crimson; Lady Laurier, salmon; Lady Warwick, white, with a Picotee margin of lake; Mr. T. E. Green, orange; Mrs. Simpson, white, with a ring of scarlet around a large white centre; Nicholas II., scarlet; Oliver, scarlet, large white centre, suffused magenta; Royal Purple, bright purple; Sir Wilfrid Laurier, vivid magenta, large white centre; and White Lady, pure white. Double—Agrippa d'Aubigné, deep crimson; Bertha de Presilly, pink; Charles Gounod, scarlet, white centre; Champ de Neige, pure white; Golden Glory, orange; and René Bazin, salmon. Several nurserymen make a speciality of this class of Pelargonium, and among them Messrs. H. Cannell and Sons of Swanley, Kent, stand in the foremost rank. There is scarcely a meeting of the Royal Horticultural Society throughout the year at which their Pelargoniums are not seen. Mr. H. J. Jones of Lewisham also grows an extensive collection and exhibits largely, while of late Messrs. Baker of Lichfield Street, Wolverhampton, have shown some fine collections.

CARPET PLANTS FOR BED OF AZALEAS (Worcester).—For carpeting the ground of your Azalea bed you could not possibly do better than employ the low-growing hardy Heaths. We should, however, prefer to plant the Erica carnea on the outside, and Erica vulgaris towards the middle, as the first named is the more compact grower of the two. There is, however, no need to limit yourself to the two named, as there are four distinct species with, in the case of two of them, a great many varieties. The four are: Erica mediterranea hybrida, whose rosy purple blossoms are often borne quite a month before Christmas, from which time it will continue in beauty till spring is well advanced; Erica carnea and its white variety, which commence to flower early in the new year; Erica cinerea, at its best about midsummer, and whose flowers vary from white to deep red; lastly comes Erica vulgaris (the Heather), whose range of colour is as great as that of the preceding. This blooms in autumn, so that by employing the four you will have flowers throughout the greater part of the year. A further variety might be introduced by planting a few of the Lilies that would be likely to succeed under these conditions, such as L. auratum, L. Browni, L. Hansonii, L. Henryi, L. longiflorum, L. speciosum and its varieties, L. testaceum, and L. tigrinum. These Lilies would keep up a display from the latter part of June till the autumn.

CULTURE OF FREESIAS (*John Gardner*).—1. The middle of September is quite late enough to pot even the latest *Freesias*, for it must be borne in mind that the bulbs are small and suffer greatly if kept out of the ground too long. We prefer potting by the end of August. 2. *Freesia Leichtlini* major is not more difficult to grow than *F. refracta alba*, and the treatment required is the same. 3. It is not necessary to plunge the pots, neither should they be shaded from the light, as the object is to encourage as sturdy a growth as possible, for *Freesias* quickly become weakly unless they have plenty of light and air.

GROWING ENDIVE (*D. D.*).—It is now too late to sow Endive in the North in the open. That should have been done in the middle of July. Your best plan now to get a full supply would be to plant some strong seedlings in good soil and plant in frames in the autumn. On the other hand, you have another course open which may be easier, and that is now to make up lost time to sow in boxes in cold frames, or even broadcast in the frame, and when the seedlings are large enough prick them out in rich soil, say 12 inches apart, in the frames you intend to winter the plants in. This done, remove the sashes till well on in the autumn, and you will get good material for salad from October to March. Endive is more useful than Lettuce. It winters better if not kept too damp. The same treatment is necessary, and you would do well to plant a few of the smaller seedlings in boxes for a late supply. Small plants of the Batavian Round-leaved will be most serviceable. These may be wintered in any fruit houses at rest during the midwinter months. The two best Endives are the one named above, which is the hardiest of all, and the Green Curled, an ornamental but more tender variety.

SALADS FOR WINTER USE (*D. D.*).—To get good salad in winter it is necessary to have a strong plant before you fill your frames in the autumn. For instance, you must lose no time in sowing Lettuce for the purpose on an open border. Sow very thinly, prick out as soon as large enough to handle in rich soil, and then late in October or early November, according to the season, lift carefully with a good ball of earth and roots, and plant in the frames for the winter supply. For this purpose some prefer Cabbage to Cos varieties; you may want both, and we should not sow the largest growers, but those of compact growth, hardy, and of good colour. All the Year Round or Victoria are excellent. Hammersmith Hardy Green is one of the hardiest, and may be used from December to March. The best Cos are Sutton's Little Gem and Black-seeded Bath; the first is a splendid frame Lettuce. In planting in frames the soil should be made quite firm as each plant is put in position, and the plants freely exposed in mild weather. Give extra covering at night to keep out severe frost. Damp is often more fatal than frost, so that you must maintain a free circulation of air when possible. Remove all decaying matter when necessary, and from the time of planting very little moisture will be required if a good soaking is given to settle the plants at the start. The plants should be only a few inches from the glass.

PLANTING STRAWBERRIES (*D. D.*).—You should lose no time in planting Strawberries if you want good fruit next season. You are favoured with a suitable soil, good position, and, we may add, a most favourable locality for late fruits. The varieties you name, Royal Sovereign and Viscomtesse Héricart de Thury (or Garibaldi, as it is known in the North) are very early sorts, and you require mid-season and late varieties; but even in favoured Scotland, to get very late dishes, or, say, the early part of September, you will do well to plant on a cool site for the season named also the latest variety. You will find President still one of the best for mid-season, a free grower, very hardy, a grand cropper, and of splendid flavour. President, planted on an open border, will follow Royal Sovereign. We would then

advise you to follow the President with Aberdeen Favourite, a grand North Country Strawberry, large and good. This will give you fruit during the latter part of August. For latest work we would advise Laxton's Latest, a new fruit of splendid quality, or Givon's Late Prolific. Both are very fine and of good quality; the last-named is not a strong grower, and needs good cultivation. There is an old and very late variety that did well with us in the North, and that is Oxonian, or Eleanor. It is very late, but of poor quality.

CULINARY PEAS DISEASED (*T. C.*).—You have given us no cultural details, and without these we are in a difficulty. In the first place we have no knowledge of the soil, if heavy or light, what food has been used, and if artificial foods were used at all freely, as with the hot weather the plants would collapse. Again, have you given help in the way of moisture, or have the plants had sufficient room? Judging from the appearance of the plants sent, they look as if you had sown too thickly. This done, the heat and drought for only a few days would cause the mischief. Only two weeks ago we saw a lot of Peas being grown for seed purposes by those who should have known better, as the seeds were sown like Mustard and Cress. The result was failure. In wet weather the plants may have pulled through, but not in such a summer as we have this year had. We will gladly help you if you can give us a few details of culture. In writing again would you tell us the names of the Peas, when sown, and space between the rows; ground if heavy or light.

FERN FRONDS AND VINE LEAF (*W. E. G.*). All are badly infested with the ordinary thrips (*Heliothrips Adonidum*). It is evident that you have had a very dry atmosphere in the house, and probably too much artificial heat. Both of the Ferns are hardy, and when grown in warmth are liable to get overrun with thrips. You can do nothing with the Vine now except to give it a good syringing and damp all parts of the house. Put the Ferns out of doors. You might cut the fronds off and dip the crowns in any ordinary insecticide. To prevent a recurrence of the trouble on the Vine after the Grapes are cut throw the house open, thoroughly soak all parts with water, clean off all loose bark from the Vine after the pruning is done, which should be in December, then paint the stems with any ordinary insecticide, adding some sulphur, and use it about double the strength given in the instructions. And even then, unless you keep up a moist atmosphere, you may be troubled with the same pest another season. In the early part of the season if the trouble appears fumigating with the liquid XL All is the best remedy, but this must be done at least three times in about a week, as those in a larvæ state will not be affected, and it is only by successive fumigations that they can be eradicated.

SMALL FLOWERING BUSHES (*Lancaster*).—As the Lemon-scented Verbena survives the winter with you, there is no doubt that the Myrtle will be equally satisfactory. The garden varieties of Veronica, too, are beautiful flowering shrubs of neat growth, at their best in the autumn, while a succession of flowers is often kept up till winter. Three of the very finest varieties are Diamant, crimson; La Seduisante, purple; and Reine des Blanches, white. The following shrubs can all be recommended for your purpose: *Abelia rupestris*, a neat growing little shrub about 3 feet high, that bears pretty bluish-coloured flowers throughout the summer. *Choisya ternata* (Mexican Orange Flower), a neat evergreen that can be kept to a height of 5 feet, and in early summer, when studded with its white sweet-scented blossoms, it is very beautiful. *Cotoneaster horizontalis*, only about 18 inches in height, but will spread for some distance in a horizontal direction. The minor branches are arranged in an extremely regular manner. The scarlet berries and decaying leaves in autumn render it very bright. *Cornus Spathi*, a variety of the Siberian

Dogwood, with bright golden foliage, which is intensified by exposure to the summer's sun. *Cydonia japonica* (Japanese Quince), which is represented in our gardens by numerous forms, may be kept as a bush 4 feet to 5 feet in height, though it is usually treated as a wall plant. *Deutzia discolor purpurascens*, one of the best of the *Deutzia* family, will, when about 4 feet in height, bear its pretty pink flowers in great profusion. The white blossoms of *D. gracilis*, which is rather less in stature than the preceding, are also very effective. Both these flower in the spring. *Escallonia philippiana*, the hardiest of the *Escallonias*, will reach a height of 6 feet, though it may be kept down somewhat less than that. It blooms about midsummer. *Hypericum oblongifolium*, a handsome Saint John's Wort, seen at its best as a bush from 4 feet to 5 feet in height, and laden with its golden blossoms. The dwarfier growing *H. moserianum* is in its way equally beautiful. *Kerria japonica variegata* is, unlike the vigorous double-flowered form, a twiggy, rounded bush, whose leaves are prettily variegated with white, and for some time during the summer it is dotted over with single blossoms of a palish yellow tint. *Magnolia stellata*, a charming little shrub about 3 feet high, which towards the end of April is laden with pure white flowers somewhat suggesting a small Water Lily. *Olearia Haasti*, a neat growing Box-like bush, absolutely covered with clusters of little white flowers in August. *Osmanthus ilicifolius purpureus*, a Holly-like shrub, whose leaves are of a pleasing purplish tinge. *Philadelphus Lemoinei* and *P. Lemoinei* *Boule de Neige* are low-growing varieties of the Mock Orange, the first with single and the second with double flowers. Lilies likely to suit your purpose are: *Lilium Browni*, *L. bulbiferum*, *L. candidum*, *L. chalcedonicum*, *L. croceum*, *L. dauricum* in variety, *L. elegans* in variety, *L. Hansoni*, *L. longiflorum*, *L. Martagon*, *L. monadelphum*, *L. pomponium*, *L. pyrenaicum*, *L. testaceum*, and *L. tigrinum*. With the additional shade afforded by the shrubs we should be inclined to again try *L. speciosum*, while the erratic *L. auratum* is such a grand Lily that it can scarcely be dispensed with, and there is always the chance of its succeeding.

PROPAGATING TIGER LILIES (*A. M. C.*).—We advise that you sow the bulbils in the open ground at once. Choose a site partially shaded by some fruit or other tree, dig deeply, and work a liberal quantity of leaf-soil and sand with the upper stratum. Sow as you would garden Peas, in drills—this makes it easier to weed and keep clean—and cover with not more, but rather less, than 2 inches of sandy soil. Cover the site with an old piece of canvas or Russian matting till spring, when they will push through the soil in quantity. Water as may be required during summer and mulch with more leaf-soil and sand in the following winter. When two years old lift all the bulbs, sort out the largest and plant them in a prepared bed. These should flower in the fourth year splendidly, but there will be a few laggards that may await the fifth year. It is better to lift and change the site in the second year from sowing; they grow much faster in a loose, friable soil than they would in the old "seed" beds. In your warm and moist climate Tiger Lilies do not lose so many basal roots, and we are of opinion that you should flower many in the third year from planting the bulbils. Keep a sharp look out for slugs always.

PLANTS FOR GRAVES (*M. B.*).—In order to furnish a grave in a permanent manner so that it requires but little attention, the plants proposed would answer very well. The Mossy Saxifrage makes a neat carpet, and it should be planted thinly so as to allow bulbous things such as Snowdrops, Crocuses, small Daffodils, and other similar plants to come up freely in between. A good permanent carpet that always looks tidy is provided by *Saxifraga umbrosa* (London Pride), but this plant would grow rather too dense to

allow the bulbs to come up and flower as they should do. A charming little creeping plant is *Acæna microphylla*, with its bronzy foliage and globular heads of brilliantly-coloured spines, which last throughout the summer and autumn. Glory of the Snow easily pushes its way through this, so would *Anemone apennina* and *Snowdrops*. To produce the best results the soil must not be too rich and heavy, and it should also be raised a little above the surrounding level, as the *Acæna* colours most brilliantly when growing on a rather dry ledge or bank. If planted thinly it will not require attention for a long time, as it is not a rampant grower where the soil is poor. To relieve the flatness one or two dwarf shrubby plants of slow growth might be introduced, such as variegated *Euonymus*, which should be cut back annually to a convenient size.

PEACH STONES CRACKED (*New Castle*).—This is caused by the defective fertilisation of the flowers when the tree is in bloom. This process must be assisted next year by artificial means, namely, by drawing a dry rabbit's tail over the flowers when they are fully expanded in order the more effectually to disperse the pollen so that it may come in effective contact with the stigma or the embryo fruit. It is also an indication that your soil is deficient in lime.

POPPIES (*Ignoramus*).—There is little doubt that the Poppies would seed abundantly—too abundantly, we think, and the result prove disappointing. A much better result would be likely to follow if you gathered a portion of the seed of each variety and sowed it thinly as required. By allowing the seeds to fall you may get a preponderance of seedlings, or you may get but few, as the birds may take them as they lie exposed upon the ground. In all the circumstances we regard it risky for garden beds, while permissible always in wild gardening and such-like places. We would therefore collect sufficient of each kind, gather and discard the remainder, and sow the beds thinly either in late autumn or early spring.

MARECHAL NIEL FROM CUTTINGS (*S. S.*).—If you inserted some sound, well-ripened wood at once you could obtain nice rooted plants by the autumn. Make up a small bed in your cool vinery in a sunny position. Plenty of sand should be used in the composition of the bed. Cover the bed with a hand-light or bell-glasses. Take off the cuttings, if possible, with a heel, and dibble into the bed, taking care they are pressed firmly at the base. The foliage on the top part of the cutting should be retained. Sprinkle the cuttings with a fine rose can every day for about two weeks, and if very hot sprinkle three or four times a day. The glass should be shaded from very bright sun with sheets of newspaper. When you see the cuttings are commencing to grow, give a chink of air, increasing this each day, and finally removing the glass altogether. In this cool vinery the rooted cuttings should make rapid progress, but if you are obliged to give much air for the Grapes, it would be well to retain the glass on the cuttings rather than give them air too abundantly.

VIOLET LEAVES DISEASED (*W. Coles*).—The Violet leaves you have sent are suffering from a bad attack of a fungus to which the Violet is especially liable, namely, *Puccinia Viola*. This fungus grows within the tissues of the leaves, the only part appearing on the surface being the reproducing organs by which the disease is spread. The fungus being thus situated (between the leaves) it is difficult, if not impossible, to apply an effective remedy, but you are quite right in syringing with sulphur and water, as this will help to arrest its progress by killing the outward reproducing spores. The conditions most favourable for producing an attack of this fungus we have found to be in the plants being planted too close together in frames under glass in winter and spring, and insufficient ventilation of the plants whilst growing under these conditions. The

Violet, above all other hardy plants, loves pure air and plenty of it; indeed, it cannot be deprived of it for long without serious injury to the plants. We can only suggest that your Violets contracted the disease when in the frames under some such adverse conditions, the spores lying dormant until the heat of summer caused their free development. We should at once pick off the leaves that are badly affected and burn them. Continue to syringe with weak sulphur and water (1½ oz. to 1 gallon of water) once a week, and with clean water every other warm and fine afternoon of the week. Give a good soaking of weak manure water from the stable-yard every week or ten days. This will infuse new vigour into the plants and help them to plump up good flowering crowns before winter. As regards the stamping out of the disease, the best way will be to throw away the old plants after they have done flowering in the spring and procure a new stock from another district some distance away, where the plants are free from this fungus. Should this not be practicable, then the greatest care must be exercised in selecting only off-shoots of the old plants which are clean for the purpose of raising stock after the old plants have done flowering. The leaves are free from red spider.

INFESTED PEACH LEAVES (*J. M.*).—Whilst the Peach leaves sent show by their size and general appearance the tree is healthy, they also show that they are badly infested with scale insects and aphids. You will find the scale coccus close to the leaf ribs on the undersides. The black secretion on the surface of the leaves indicates excrement of aphids. These attacks of insect pests are probably chiefly due to dryness at the roots, which would also be the primary cause of the fruit falling early. Amateurs, we fear, have little idea as to the quantity of water Peach trees under glass need to reach thoroughly to the roots. Your best course now is to give the house a strong fumigating with tobacco smoke or XL Vapour, also giving the tree a heavy syringing later to well wash it, and the roots a thorough soaking of water. In the winter a gentle syringing with what is known as the caustic soda and potash solution, 1 lb. of each dissolved in ten gallons of hot water, then sprayed over the tree and the house may cleanse all effectually. Still water the tree liberally.

AURICULAS (*G. W. H. Lago*).—It is quite optional, assuming the seedlings are what is known as border Auriculas, whether you grow them in pots or plant them out in well-prepared border soil. If well planted and given some attention also, the plants will obviously make greater progress in the open than in pots. If you pot them and have a small greenhouse in which to flower them, pots 5 inches diameter at the rim will do quite well. Strong, i.e., rather clayey loam, made sandy, with the addition of leaf-mould and a little finely-sifted manure, will make a suitable soil compost in any case. Potting or planting out should be done without delay, and a rather shady spot in the garden should be selected. Good drainage is at all times essential, and firm planting also. If you grow the plants in pots, pot firmly, and so place the plant that its lowermost leaves will spread out and rest upon the soil nearly or quite flat. Between the top of the soil and the rim of the pot a space of nearly half an inch should be left for the efficient watering of each plant—an important item which many amateurs lose sight of. If your seedlings are yet small—and they will not be very large from March-sown seeds—the pots they are now in will suffice for the coming winter. Always use perfectly clean and quite dry pots.

CLEMATIS FROM CUTTINGS (*S. S.*).—The spring is the best time to insert Clematis cuttings. You should put some pot plants into a warm house early in the year, and the cuttings can be made from the new growths as soon as they are firm enough. This would be about when they are in bloom. Insert cuttings in gritty soil around the side of a 3-inch pot, and put in a frame having

bottom-heat. The cuttings do better where there is bottom-heat. When rooted pot into 2½-inch pots and grow on in a greenhouse with a moderate temperature. As they require it pot on into pots a size larger, then plunge them in a cold pit for the summer. They will remain here until the following spring, when it is usual to pot into 4½-inch pots. The cooler Clematis can be grown the better it is for the health of the plants, but it is essential that there should be bottom-heat for rooting the cuttings. If you have any old plants outdoors Clematis may be successfully layered, treating the layers in a similar manner to a Carnation. This plan is not very much used, as only a very limited number is obtainable. If layered into pots in a similar way to Wistaria they are then more readily and safely transplanted to another position. Sharp, gritty soil, free from manure, but containing some leaf-soil, is the best.

PEARS AS PERGOLA (*Mrs. F. H.*).—Pergolas on which Pear trees are grown are best constructed with a rounded top, in the shape of an arch, rather than with the flat top of the ordinary pergola, as the shoots of the trees have not then to be bent at right angles. Pear trees succeed excellently on round-topped pergolas, and there are many instances where these are satisfactory, notably, in the kitchen garden at Treilissick, near Truro, where a Pear tree pergola extends through the centre of the garden. These trees flower and fruit very well, the Pears ripening as perfectly as on bush trees. No danger need be anticipated, as you fear, from the pergola forming a funnel for the wind to blow down. Your selection of varieties is a good one.

TOMATOES FAILING TO SET FRUIT (*B. S. C.*).—Should you have occasion to send again, would you please enclose the plant in a box. The piece of Tomato flower-stem sent came to hand so crushed in the letter that nothing could be made of it. We gather from your note that the plants either fail to flower or to produce fruit. In either case it is just possible that you have a bad stock of Tomato, or that while producing flowers these, for lack of pollen, fail to set blooms. Could you get anyone who has good fruiting plants to give you some pollen shaken from their flowers on to a sheet of white paper, and use that to fertilise the pistils of your flowers? It is, of course, possible that a severe check received by the plants in March may have had upon them an adverse influence, but we should have expected that with warmth and good treatment they would have been before now in robust health.

TOMATOES DISEASED (*Anxious*).—From the description you give of the sudden collapse of your plants and from the appearance of the dead leaves sent, we have little doubt that it is a case of a virulent attack of the Potato disease fungus. You have acted quite right in cutting off the diseased leaves, and we hope you burnt them. The best thing you can do now is to syringe the plants with sulphur and water fairly strong every other day for a week. This should have the effect of arresting the further spread of the disease, and the sulphur may be syringed away after this time. Shade the plants during hot sunshine, and give the soil a mulch of fresh horse manure, and if the soil is moderately dry give a good soaking of warm water over the mulch. If the soil is already wet, no water must be given at present. Keep the atmosphere of the house dry with fairly warm temperature and a little fire-heat at night to keep the air moving and buoyant. If the plants are not too far gone this treatment may help to bring them round again. Our experience of the cause of the visitation of this fungus in three cases out of four has been that the land has not been manured enough to stand the great strain of heavy cropping which the plant at this stage is subjected to. A too strong application of some artificial manure will often so weaken the plants as to invite an attack of this disease, and over-dryness at the root when

bunches or spikes of herbaceous plants. In the gardeners' classes several amateurs competed with conspicuous success, but the pressure of space at this season will prevent details of these and the amateurs' classes. In the former, however, such winners as Mr. J. Frasier, Mr. P. Hunt, Mr. J. Russell, Mr. W. T. Bryson, Mr. T. C. Rodgers, Mr. P. MacLaughlan, Mr. A. Mackenzie, Mr. J. M'Donald, and Mr. William Robertson may be named as among the leading prizewinners. Unfortunately, the gale of the Saturday morning completely wrecked the large marquee, and this part of the show had thus to be closed. Much damage was done to plants.

SHREWSBURY FLORAL FETE.

THE thirty-first great annual floral fete of the Shropshire Horticultural Society was held on Wednesday and Thursday, the 23rd and 24th ult., in the Quarry Grounds, Shrewsbury, and was, as usual, a most successful exhibition of flowers, fruit, and vegetables. Competition was very keen in many of the classes. The silver cup offered in the champion Grape class was won again by Mr. W. Shingler, gardener to Lord Hastings, Melton Constable. He was first in the champion Grape class in 1902, 1904, and again this year, but has only won the cup once while under the present Lord Hastings, who is regarded as the exhibitor. Mr. Goodacre won the first prize in 1903. Nowhere can there be seen such a magnificent display of garden produce as at the Shrewsbury show, and as this annual fete comes and goes one feels that it stands as a powerful tribute to the untiring energy of the hon. secretaries, Mr. H. W. Adnitt and Mr. W. W. Naunton.

FRUIT.

The first class in the fruit section is for a dessert table, decorated with plants and flowers. The first prize was won by Mr. J. H. Goodacre, Elvaston Castle Gardens, Derby, with, needless to say, a splendid lot of fruit and tastefully-arranged flowers (132 points). The Madresfield Court and Muscat of Alexandria Grapes, Newtown Pippin Apples, Bellegrave Peaches, and Elruge Nectarines were perfect, a charming decoration consisting of Francoa ramosa (white) and Montbretia (orange), with suitable greenery. Mr. G. Mullins, Eastnor Castle Gardens, was second with 126 points; third, Mr. F. Jordan, Impney Hall Gardens, Droitwich, with 113 points; fourth, Mr. J. Dawes, Ledbury Park Gardens, with 111½ points; fifth, Mr. R. Dawes, Temple Newsam Gardens, with 106½ points. The champion Grape class brought some splendid exhibits, the silver cup (value 50 guineas) and £20 cash finally being awarded to Mr. W. Shingler, head gardener to Lord Hastings, Melton Constable, whose Grapes gained 112½ points. The only bunches that obtained maximum points were two of Alnwick Seedling. Mr. G. Goodacre, Elvaston Castle Gardens, Derby, was second with 109 points; third, Mr. Cairns, gardener to J. Martin White, Esq., Balruddery, N.B., with 95 points; fourth, and third for decoration, Mr. G. Mullins, Eastnor Castle Gardens (90 points); fifth, and second for decoration, Mr. R. Dawes, Temple Newsam (76 points). The first prize for decoration was won by Mr. S. Bantoff, gardener to J. Drakes, Esq., Market Rasen, who was sixth for Grapes. Prizes for decoration were given separately.

For a collection of sixteen dishes of fruit Mr. Goodacre was first; Mr. Jordau, Impney Hall Gardens, second (first for decoration, using Cattleys, Smilax, and Asparagus chiefly); Mr. Cairns, gardener to J. M. White, Esq., Balruddery, was third; Mr. Mullins was fourth for fruit and second for decoration. The first and second prize lots were very fine.

For twelve dishes of fruit Mr. James Dawes, Ledbury Park Gardens, was first with fine fruit. Mr. Dawes was also first for decoration, using the beautiful pink Chironia ixifera and Gypsophila. Second for fruit and also for decoration, Mr. J. Jones, gardener to Mrs. F. Need, Great Malvern; third for fruit and for decoration, Mr. S. Bantoff, Market Rasen.

Nine dishes of fruit: First, Mr. C. Wilkins, gardener to C. F. K. Mainwaring, Esq., Oteley, Ellesmere (third for decoration). The Grapes and Nectarines were very fine. Second, the Rev. T. M. Bulkeley-Owen, Tedsmore Hall; third, and first for decoration, Mr. C. Roberts, gardener to Mrs. Swann, Halston Hall; fourth, and second for decoration, Mr. S. Posting, Rudge Hall Gardens.

In the classes for one or more bunches of Grapes some very good fruit was shown, and competition was keen. For four bunches, two black and two white, Mr. W. Taylor, gardener to W. Marsh, Esq., Bath, was first out of eight entries. For two bunches of Black Hamburgh Grapes Mr. W. Mitchell, Chilworth Manor Gardens, was first. Mr. W. A. Coates, Glastonbury, showed the best single bunch of Black Hamburgh. Mr. Goodacre was first for two bunches of Black Muscat Grapes, showing Muscat Hamburgh. Mr. Mitchell again won for two bunches of Madresfield Court Grapes. Mr. W. Taylor was first for two bunches of Alicante, for two bunches of any other black Grape, and for two bunches of White Muscats (out of nine entries). Mr. A. H. Hall, gardener to Colonel Hayhurst, Middlewich, had the best single bunch of White Muscats. Mr. A. Child, gardener to H. A. Attenborough, Esq., Daventry, was first for two bunches of any other white Grape with excellent Buckland Sweetwater. The Rev. T. M. Bulkeley-Owen won for two bunches of Black Hamburgh and for two bunches of Madresfield Court (both classes open to Salop only). Mr. T. Lambert, gardener to Lord Harlech, was first for two bunches of any other black Grape (Salop only), and for two White Muscats (Salop only). Mr. Mills, gardener to Captain Heywood, Lonsdale, won.

For six Peaches Mr. E. Grindrod, gardener to G. T. Bates, Esq., Hereford, was first out of sixteen competitors with Bellegrave. Mr. Goodacre had the best Nectarines. The Rev. T. M. Bulkeley-Owen was first for green-fleshed Melon with Eadie's Favourite, R. H. Kenyon, Esq.,

Oswestry, first for a scarlet-fleshed Melon, and Mr. R. Dawes, Temple Newsam, first for a white-fleshed Melon (all judged by flavour). Mr. Goodacre was first for twelve Gage Plums and for twelve yellow Plums, and the Rev. T. M. Bulkeley-Owen was first for twelve purple or red Plums.

PLANTS.

Messrs. J. Cypher and Son, Cheltenham, won first prize for fifteen stove and greenhouse plants with a magnificent lot, Statice, Heaths, Chironia, &c. Mr. Vause, Leamington, was second.

For six stove and greenhouse plants Messrs. Cypher were first, Allamanda and Ericas being very fine; second, Mr. Vause; third, Mr. B. Cromwell, gardener to T. Sutton Timmis, Esq., Allerton, Liverpool. Mr. Cromwell was first for six fine foliage plants, Messrs. Cypher second.

The finest group of miscellaneous plants, in and out of bloom, was shown by Messrs. J. Cypher and Sons, Cheltenham. It was a beautiful arrangement, Orchids, Lilies, and light foliage plants being gracefully intermixed. Second, Mr. Macdonald, gardener to G. H. Kendrick, Esq., Edgbaston; third, Mr. Vause, Leamington.

For a group of ornamental foliage plants the Leamington Nurserymen and Florists, Limited, were first. It contained many finely-coloured, well-grown plants, boldly arranged. Messrs. Cypher and Son were second with a group that rather lacked colour; third, Mr. Read, Bretby Park Gardens, Burton.

Mr. Cromwell, Allerton, was first for thirty stove or greenhouse plants in pots not exceeding 10 inches. Chironia ixifera, Ixora Duffii, and others were splendid. Second, Messrs. Cypher; third, Mr. Vause. Mr. Cromwell showed the best Ferns; Mrs. Darby, Adcote Hall, Baschurch (gardener, Mr. R. Lawley), was first for Dracaenas; Mr. Cromwell won for Caladiums; Mrs. R. Taylor, Abbey Foregate, showed the best double Geraniums; C. J. Gordon, Patchet, was first for pyramid-shaped Coleus; Mr. A. Bateman, Preston Street, Shrewsbury, won for Fuchsias.

The finest lot of tuberous Begonias was exhibited by Mr. E. Davies, Pershore. They were a splendid lot. Those shown by Messrs. Blackmore and Langdon, Bath, which won second prize, were also very fine.

Mrs. Swann, Halston Hall, Oswestry (gardener, Mr. C. Roberts), was first for a group of plants (Salop only); Mr. T. Lambert, gardener to Lord Harlech, had the best six stove and greenhouse plants (Salop only); and Mr. James Tarrant, Shrewsbury, won for a similar number of plants in another class.

CUT FLOWERS.

For an arrangement of Sweet Peas suitable for dinner table (prizes offered by Mr. Robert Sydenham, Birmingham), Mr. Edward Deakin, Hay Hall, was first, W. H. Binks, Esq., Kingston (gardener, Mr. G. Bamfield), being second, and Mr. Davies, Pershore, third. For twelve distinct varieties (prizes by Mr. R. Sydenham), Mr. T. Duncan, Figo, Duns, was first with an excellent lot of flowers; second, Mr. T. Jones, Bryn, Penylan.

The Silver Challenge Cup offered by Mr. Henry Eckford, Wem, Salop, for the best eighteen distinct varieties of Eckford's Sweet Peas was won by Mr. J. Gibson, Duns, with fine flowers; second, Mr. T. Jones, Penylan; third, Mr. T. Duncan.

Mr. Gibson, Duns, was first in the class for six vases (prizes by Messrs. Jones and Son, Shrewsbury); second, Mr. T. Jones, Penylan.

In the open class for twelve distinct varieties of Sweet Peas, Mr. A. Malcolm, Duns, was first with a splendid lot; second, Dr. Brown, Naas, County Kildare.

Collection of cut Carnations and Picotees, with own foliage and buds: First, Mr. A. F. Dutton, Iwer, Bucks, with a very beautiful lot of flowers; second, Messrs. Campbell and Son, High Blantyre, N.B. Mr. W. B. W. Vernon, Welsh Frankton, was first for a smaller group.

For a collection of hardy perennials (Roses excluded) Messrs. Harkness and Sons, Bedale, were first with a splendid lot of flowers; second, Mr. M. Pritchard, Christchurch; third, Messrs. Gibson and Co., Bedale.

Messrs. Keynes, Williams, and Co., Salisbury, were first for a collection of Cactus or decorative Dahlias with a very beautiful display. Messrs. Campbell and Son, High Blantyre, won for a collection of Dahlias, any varieties; second, Mr. W. Treseder, Cardiff.

Messrs. J. Cocker and Sons, Aberdeen, won first prize for twenty-four bunches of hardy flowers; and Mrs. Alderson, Frankton (gardener, Mr. G. Davies) was first for twelve bunches.

Twenty-four cut Roses: First, Messrs. Cocker and Sons, Aberdeen, with excellent blooms; second, Messrs. D. and W. O'roll, Dundee; third, Messrs. J. Simpson and Son, Dundee. Messrs. O'roll were first for eighteen cut Roses; second, Messrs. Cocker; third, Messrs. Simpson. Mr. J. Russell, Newtown Mearns, N.B., was first in a similar class (trade excluded); Dr. O'Donel Browne, Naas, County Kildare, was second.

Mr. W. Treseder, Cardiff, won first prize for twenty-four blooms of fancy Dahlias, Mr. J. Smellie, Bushy, N.B., being second. For twelve fancy Dahlias, Mr. T. Jones, B. yn, Penylan, was first. Mr. W. Treseder, Cardiff, won for twenty-four Cactus Dahlias, Mr. Smellie, Bushy, being second. Mr. H. Penman, Nantwich, was first for twelve Cactus Dahlias (trade excluded).

FLORAL DECORATIONS.

For a dinner table decoration, Miss M. Morgan, Shrewsbury, won first prize, using pale pink Carnations; second, Miss Mary Allen, Wrockwade Wood. For a dinner table decoration of Sweet Peas, Mrs. Nixon, Alderley Edge, was first, using pink varieties; second, Miss M. Morgan.

Mr. Garner, Altrincham, won first prize for a bride's bouquet and for a bouquet of flowers. For a bouquet

(Orchids excluded), Messrs. Felton and Sons, Hanover Square, were first; they also won the first prize for a shower bouquet, feather-weight bouquet, and floral harp. Mr. O. Robinson, Alderley Edge, was first for a floral wreath and for a stand of cut flowers.

VEGETABLES.

Collection of vegetables (prizes by Carter and Co., High Holborn, London): First, Mr. E. B. Cckett, Aldenham Gardens; second, Mr. B. Ashton, Ormskirk.

Collection of vegetables (prizes by Sutton and Sons, Reading): First, Mr. W. L. Bastin, gardener to Sir A. Henderson, Bart., Buscot Park; second, Mr. H. Folkes, gardener to T. Kerr, Esq., M. P., Hemel Hempstead.

Mr. R. C. Townsend, Chalfont Park, Slough, won first prize for eight kinds of vegetables (prizes by Murrell and Co., Shrewsbury). Mr. J. Abbott, Hadnall, was first in a smaller class.

Collection of vegetables (prizes by Webb and Sons, Worsley, Stourbridge): First, Mr. B. Ashton, Ormskirk; second, Mr. W. L. Bastin, Buscot Park, Faringdon.

Collection of vegetables (prizes by Smith and Co., Worcester): First, Mr. R. A. Horspool, Ruabon; second, Mr. B. Ashton.

In the open class for twelve distinct kinds of vegetables, Mr. E. Beckett, Aldenham, was first; second, Mr. J. Hudson, Leicester. For nine kinds (Salop only), Mr. J. Mills, Shavington Hall Gardens, was first; second, Mr. T. Delamere, Yuckleton Hall Gardens.

Collection of vegetables (prizes by Robert Sydenham, Tenby Street, Birmingham): First, Mr. W. Pope, Highclere; second, Mr. R. A. Horspool, Ruabon.

NON-COMPETITIVE EXHIBITS.

Messrs. Dobbie and Co., Rothesay, N.B., exhibited Potatoes in sixty-five varieties, as well as a brilliant display of Pansies and Dahlias. The Sweet Peas, Carnations, Dahlias, &c., from Jones and Sons, Shrewsbury, made an excellent show. R. Wallace and Co., Cichester, made a splendid display with a bold exhibit of hardy flowers, as Lilies, Gladioli, Montbretias, Phloxes, Water Lilies, &c. Albert Myers, Shrewsbury, exhibited a very fine group of zonal Pelargoniums. Dicksons, Chester, showed a group of excellent Crotons and a brilliant lot of hardy flowers. The exhibit of Dahlias, Pelargoniums, and hardy flowers from Baker's, Wolverhampton, covered a large space and made a grand show. Isaac House and Son, Westbury-on-Trym, Bristol, showed a splendid lot of Phloxes and other hardy flowers.

A very meritorious collection of fruit trees in pots and dishes of fruits was shown by the King's Acre Nurseries, Limited, Hereford. Edwin Murrell, Shrewsbury, set up a beautiful lot of Roses in variety. Felton and Sons, Hanover Square, W., exhibited pot plants in variety. John Forbes, Hawick, made a grand display with Pentstemons, Phloxes, Carnations, &c. Amos Perry, Winchmore Hill, exhibited hardy flowers in great variety, including a lovely lot of Water Lilies. Henry Eckford, Wem, showed some very fine varieties of Sweet Peas, including the unique Henry Eckford. W. A. Watts, Bronwylls, St. Asaph, showed a fine group of border Carnations, including The Master (vivid scarlet) and Mrs. Kearley (blue). William Cutbush and Son, Highgate, N., had a prettily-arranged group of hardy flowers and Water Lilies. Clibrans, Altrincham, showed a splendid collection of small Crotons for table decoration. Tuberous Begonias were finely shown by Davis, Yeovil. R. Smith and Co., Worcester, set up a large group of Bamboos and hardy flowers in variety. Hewitt and Co., Solihull, showed hardy flowers, and Pritchard and Sons, Shrewsbury, sent plants in pots. Messrs. Gunn and Sons, Olton, Birmingham, showed a splendid lot of Phloxes. Messrs. T. S. Ware, Limited, Feltham, sent some good tuberous Begonias and other flowers. J. Cheal and Sons, Crawley, made a pretty display with Dahlias, and Mr. Vincent Slade, Taunton, made a brilliant bit of colour with zonal Pelargoniums. Mr. Angus, Penicuik, exhibited Chrysanthemum maximum King Edward, Disa grandiflora, &c. A new bronze-leaved bedding Begonia (Abourea root) called Bronze Beauty was sent by Mr. G. H. Townsend, Malvern. Mr. Anker, Napier Road, Kensington, showed Cacti. Pansies and Violas were largely shown by Mr. W. L. Pattison, Shrewsbury. Roses, Pelargoniums, Carnations, &c., were sent by W. and J. Brown, Stamford. Robert Bulton, Warton, Carnforth, had a splendid lot of Sweet Peas in many varieties. Mr. G. Prince, Longworth, Berks, showed some beautiful garden Roses. Mr. J. Derbyshire, Hale, Altrincham, sent Sweet Peas. From Chard, Messrs. Jarman and Co. sent a beautiful lot of Dahlias and cut Roses and some vegetables. Messrs. James Cocker and Sons, Aberdeen, and Messrs. J. Simpson and Sons, Dundee, sent Roses. Mr. John Robson, Altrincham, showed Dahlias, Carnations, &c. Hobbies, Limited, Dereham, Norfolk, made a large display with Dahlias and Roses. A new Viola (White May) was shown by Richard Vernon, Northwich.

MEDALS.

Large gold.—Messrs. Gunn and Sons, Olton, Birmingham; Henry Eckford, Wem; Hobbies, Limited, Dereham; Dobbie and Co., Rothesay, N.B.; Bakers, Old Hall Nurseries, Coddall, Wolverhampton; Albert Myers, Shrewsbury; King's Acre Nurseries, Limited, Hereford; and E. Murrell, Shrewsbury.

Small gold.—Messrs. Robert Bolton, Warton, Carnforth; Jones and Son, Shrewsbury; Dicksons, Limited, Chester; and Pritchard and Sons, Shrewsbury.

Silver gilt.—Messrs. Thomas S. Ware, Limited, Feltham; Hewitt and Co., Solihull, Birmingham; R. Smith and Co., Worcester; Clibrans, Altrincham; Amos Perry, Winchmore Hill, London, N.; W. Angus, Penicuik, N.B.; John Derbyshire, Altrincham; Jarman and Co., Chard; John Robson, The Downs, Altrincham; Isaac House and Son,

Westbury-on-Trym, Bristol; John Forbes, Hawick, N.B.; B. Dobbs and Co., Wolverhampton; and J. Lambert, Powis Castle, Welshpool.

Silver.—Messrs. B. R. Davis and Son, Yeovil; W. and J. Brown, Peterborough; Vincent Stude, Taunton; Pattison, Shrewsbury; Cheal and Sons, Crawley, Sussex; W. A. Watts, Brounlyla, St. Asaph; R. F. Felton, Hanover Square, London, W.; and George Prince, Longworth, Berks.

Bronze.—Mr. R. Anker, Addison Nursery, Kensington, London; and Mr. G. H. Towndown, Malvern Links.

AWARDS.

A first-class certificate was awarded to each of the following:

Montbretia Prometheus (R. Wallace and Co., Colchester); and Cactus Dahlia Mrs. Charles Scott (Seale, Sevenoaks).

Each of the following received an award of merit: Gaillardia Sulphur Gem (Perry, Winchester Hill); Cactus Dahlias Dydream and White Swan (Hobbies, Limited); Cactus Dahlia T. F. H. Cook (Cheal, Crawley); Montbretia Hereward (Wallace, Colchester); and Cactus Dahlias Bute and Good Hope (Dobbie, Rothesay).

ROYAL HORTICULTURAL SOCIETY.

THERE was a very interesting, although small, display at the Horticultural Hall on Tuesday last. Fruit was best represented, while shrubs and hardy flowers, too, were well shown. The Orchid committee granted four awards of merit to new Orchids; two first-class certificates and eleven awards of merit were given by the floral committee; and none by the fruit committee.

ORCHID COMMITTEE.

Present: Mr. J. Gurney Fowler (chairman), Messrs. James O'Brien, de B. Crawshaw, F. Sander, H. T. Pitt, H. A. Tracy, W. H. White, T. W. Bond, A. A. McBean, W. Boxall, H. Little, Harry J. Veitch, W. H. Young, and Francis W. Wellesley.

Messrs. Charlesworth and Co., Heaton, Bradford, were awarded a silver-gilt Flora medal for a handsome group of Orchids, which included some very fine *Brassia digbyana*, *Laelio-Cattleya dominiana*, *Cattleya Iris*, *C. Atalanta*, *Laelio-Cattleya callistoglossa*, *Cattleya Parthenia vernalis*, and *Laelio-Cattleya Violetta*. Other interesting plants were *Burlingtonia pubescens*, *Zygopetalum triste*, *Odontoglossum Rolfeae*, and *Cattleya bowringiana-superba*.

Messrs. Sander and Sons, St. Albans, exhibited a small group of hybrid *Cattleyas*, *Laelio-Cattleyas*, and *Laelias*. Among them were *L.-C. Henry Greenwood*, *L.-C. vivicans*, *L.-C. callistoglossa* (excellent), *(purpurata x gigas)*, a large and handsome flower; *C. Snakepeare*, with primrose yellow sepals and petals and rich purple white margined lip; and *C. Prince Edward var. superba*, rich rose sepals and petals, the lip heavily lined with rich purple.

Messrs. Stanley and Co., Southgate, N., set up a pretty lot of Orchids, comprising *Cattleya O'Brieniana*, *C. Loddigesii*, *Laelia crispata* (a beautiful flower with white fluted sepals and petals, the lip being veined and marked with ruby crimson), *L. elegans var. Turneri* magnifica, *Oncidium varicosum Rogersii*, and various *Cypripediums*. Bronze Banksian medal.

Messrs. James Veitch and Sons, Limited, Chelsea, exhibited *Laelio-Cattleya blethleyensis*, *L.-C. dominiana laevelyensis*, and *L.-C. Henry Greenwood var. imperator*, each bearing large and handsome flowers.

Messrs. William Bull and Son, King's Road, Chelsea, exhibited a small group of *Cattleya atalantia*, and F. Wellesley, Esq., Westfield, Woking, showed *Cypripedium concolor Sanderi* (new species, marked throughout with dark crimson spots on a pale yellow ground), and *C. Princess superbum* (a fairianum hybrid).

NEW ORCHIDS.

Laelio-Cattleya Isay var. Cuprea.—A very handsome flower of distinct and brilliant colouring. The sepals and petals are of a uniform rose-copper colour, the lip deep purple, while the throat and the lobes covering the column are white. One of the most distinct hybrid *Laelio-Cattleyas* shown for some time. *L. tenebrosa* and *Cattleya guttata Leopoldii* were the parents. Shown by Messrs. Charlesworth and Co., Heaton, Bradford. Award of merit.

Cypripedium Godefroyae leucochilum Goodson's variety.—A very good form of this *Cypripedium*, the dark crimson markings on the cream-coloured ground of the dorsal sepal and the petals make a handsome flower. The lip is practically unspotted. Shown by H. S. Goodson, Esq., Fairlawn, Putney. Award of merit.

Miltonia Cogniauxiae.—A natural hybrid between *M. Regnellii* and *M. spectabilis* morelana, the sepals are heavily marked with pale rose-brown upon a paler ground; the large, flat lip is purple. Shown by C. B. Gabriel, Esq., Easdale, Hor-el, Surrey (gardener, Mr. J. Hillier).

Milt-mia vaxillaria The Dell variety.—The largest form of this well-known Orchid that we have seen. From top to bottom the largest of the blooms shown (and it was little larger than the others) measured over 5 inches. This variety is of pale rose colouring throughout, except for the yellow central blotch and radiating lines of reddish purple. Shown by Baron Sir Henry Schröder, Bart., The Dell, Egham (gardener, Mr. Ballantine).

FRUIT AND VEGETABLE COMMITTEE.

Present: Mr. Joseph Cheal (chairman), Messrs. S. Mortimer, Alex. Dean, E. Beckett, G. Kell, Horace J. Wright, John Lyne, F. Q. Lane, C. Foster, G. Norman, and Owen Thomas.

Messrs. George Bunyard and Co., Maidstone, were awarded the Hogg medal of the society for a magnificent lot of fruit trees in pots. Apples, Pears, Plums, Nectarines,

Peaches, Figs, and Grapes were finely represented. There were in all fifty trees. In the centre of the group there was a tree of a new large cooking variety called Baron Wolseley. Apples Emperor Alexander, Wealthy, Gascoyne's Scarlet, American Mother; Pears Bauré Alexandre Lucas, Williams' Bon Chrétien, Doyenné Bussosch, Marchal de la Cour; Plums President, Late Orange, Pond's Seedling, Bryanton Gage, Smith's Florific; Nectarines Rivers' O ange, Fine Apple, Humboldt; Peaches Ballegarde and Late Devonian were some of the finest varieties of each fruit.

A collection of Apple trees in pots was exhibited by Mr. T. Tomlinson, gardener to R. Hoffmann, Esq., Tower House, Streatham, S.W. The trees carried very good crops, and especially the varieties Mannington Pearmain, Washington, Bismarck, and Emperor Alexander. Silver Banksian medal.

A collection of hardy fruit from Mr. R. Mountford, gardener to the Duke of Fife, East Sheen Lodge, East Sheen, gained a silver Banksian medal. Clapp's Favourite Pear, Pond's Seedling Plum, Strawberry St. Joseph, and Apples Lady Sudeley, Lord Suffield, Frogmore Pippin, and Pott's Seedling were very good fruits.

A silver Banksian medal was awarded to J. Strode Ooysh, Esq., 23, Woodville Gardens, Ealing, W., for a basket of excellent Lady Sudeley Apples, all gathered from one tree.

A silver Banksian medal was awarded to Miss Adamson, South Villa, Regent's Park (gardener, Mr. Keif), for some splendid fruits of Peaches Princess of Wales, Late Devonian, and Nectarine.

A basket of very fine Pears Clapp's Favourite was shown by Mr. George Gumbrell, The Gardens, Widdbury, Ware. Cultural commendation.

Cucumber Essex Champion was shown by Messrs. E. Abbott and Sons, Railway Nurseries, Ardleigh, Essex, but no award was made.

The Hon. A. H. T. de Montmorency, M.D., The Grange, Carrickmains, County Dublin, showed a seedling Peach called Carolie.

Several seedling Melons were shown by various exhibitors, but no award was made to any of them.

The Burbank Plum was exhibited by Messrs. Robert Veitch and Son, Exeter, but we could find no fruits of it.

A new French Runner Bean called Firefly, prettily splashed with red upon a primrose-coloured ground, was shown by Mr. C. Engelmann, Horneybrook Nursery, Saffron Walden.

A collection of Plums (fruiting branches of each) was shown by Mr. W. Crump, Madresfield Court Gardens, Malvern, including Black Diamond, The Sultan, Cox's Empress, Victoria, Pond's Seedling, and Magnum Bonum, all from bush trees, and the Pershore Plum, from half standards. Victoria, Magnum Bonum, The Sultan, and Belgian Purple bore tremendous crops.

A cultural commendation was awarded to Mr. R. Winstanley, Gogerddan Gardens, R.S.O., Cardigan, for Lemons.

FLORAL COMMITTEE.

Present: Mr. W. Marshall (chairman), Messrs. H. B. May, C. T. Drury, George Nicholson, James Hudson, George Reuthe, C. R. Fielder, R. Hooper Pearson, Charles Bick, W. Cuthbertson, George Gordon, W. Bain, Charles Jeffries, Charles E. Pearson, E. H. Jenkins, W. J. James, H. J. Jones, and C. J. Salter.

The group of *Nepenthes* or Pitcher Plants from Messrs. Veitch and Sons, Limited, Chelsea, constituted one of the features of the meeting. There were some three dozen of these plants staged, several of which had as many as three dozen finely-proportioned pitchers depending from the plants. The beautiful and picturesque forms of many and their high colouring created much interest. The following were some of the more conspicuous of those exhibited: *N. balfouriana*, with large, handsome, reddish pitchers, is very striking; while *N. mastersiana*, with a profusion of reddish pitchers, is among the most easy to cultivate. Other good things were *N. dicksoniana*, with green and red pitchers; *N. Morgane*, the rather small pitchers, coloured red; and *N. Tivey*, with well-marked collar and green, red-spotted pitchers, is distinct and effective. Of the more rare there was *N. Veitchii*, with green pitchers and broad collar of bronzy green. Gold medal.

A charming set of hybrid *Pentstemons* came from Lord Aldenham (gardener, Mr. Beckett). The collection contained many good kinds, as for example Marion, crimson; Lord Lister, scarlet; Lady Curzon, white and pink; Autumn Cheer, rich scarlet; and Clarissa, scarlet with white throat.

Messrs. Barr and Son, Covent Garden, staged Asters, Gladioli, Antirrhinums, Sunflowers, Kniphofias, and other showy things in considerable variety, the Asters being a particularly showy lot. *Senecio pulcher*, *Lobelia fulgens* in variety, and *Eupatorium purpureum* were also in good condition from the same firm.

The various forms of *Nymphaea stellata* were well shown by Mr. Leopold de Rothschild, Gunnersbury House, Acton. The varieties exhibited were *N. gigantea* Hudsoni, *N. stellata* (Berlin variety), *N. s. pulcherrima*, all in varying shades of blue, with golden centre. Silver Flora medal.

Cannas in pots were superbly shown by Messrs. Cannell and Sons, Swanley; indeed, we have rarely seen these things in such perfection. Martha Washington, Black Prince, Mrs. F. Dreer, and Mrs. G. A. Strolein were among the more distinct in a very fine lot. The same firm also exhibited a strain of dwarf Antirrhinums in pots. Silver-gilt Flora medal.

An excellent strain of French and African Marigolds came from Messrs. Dobbie and Co., Rothesay. The former as exemplified in Legion of Honour, and the latter by Prince of Orange and Lemon Queen portrayed these types in the highest excellence. Silver Flora medal.

Mr. S. Mortimer, Farnham, Surrey, contributed a small but select lot of *Dhlias*, Cactus and show kinds chiefly.

Messrs. J. Mas Stredwick, St. Leonards, also had a few good Cactus *Dhlias*, in which Peach, a coral pink shade, and Primrose, a very charming flower, were very fine.

A small group from Mr. Shoesmith, Woking, included White Lady, Mrs. F. C. Stoop (rich yellow), W. Collis, and Mr. F. Carter (scarlet), all good Cactus kinds.

Messrs. James Veitch had pretty groups of *Exacum macranthum* and *Ruellia amena*, the nicely-flowered plants being in pots.

A most interesting lot of cut flowering shrubs was shown by Lord Aldenham, Elstree. There were some 150 distinct kinds staged, forming a very attractive exhibit. *Acer*, *Oaks*, *Kalmias*, *Escallonia*, *Cornus*, *Pyrus*, *Corylus*, *Hibiscus*, *Rubus*, and many others were noted. A remarkable and well-grown lot of *Crotons* came from the same gardens, proving, if proof were at all necessary, how great is the attention there given to such diverse groups of plants. The collection of *Crotons* would have done justice to a market specialist in these plants, and we have not seen them better grown or more finely coloured. Gold medal.

Messrs. Peed and Sons, West Norwood, S.E., contributed alpine pans, with other hardy flowers in the cut state. *Lobelia Kathleen Mallard*, a double kind, was well shown by Mr. A. R. Mallard, Rainham, Kent. See "New Plants."

Messrs. Paul and Son, Cheshunt, showed a batch of *Hibiscus* in variety, also *Quercus Alberti*, *Tilia americana laxifolia*, a very handsome Lime, with *Cornus Gouchaulti* and others, a very interesting gathering.

Mr. L. R. Russell, Richmond, contributed a collection of hardy Heaths, always very pleasing and effective.

Messrs. James Veitch and Sons, Limited, staged on the floor some excellent examples of *Senecio clivorum*, *Lilium Brownii leucanthum*, *Artemisia lactiflora*, with white *Spiraea-like* plumes, *Aconitum scaposum pyramidale*, *Aconitum Wilsoni*, and *Serratula atriplicifolia*, a new plant from Central China. These, with *Andromeda arborescens*, formed a most interesting group. Gold medal.

The *Dhlias* from Messrs. J. Cheal and Son, Crawley, were very good, the single kinds especially, and for which the firm is well known. Cactus varieties were also well shown.

Mr. Amos Perry, Winchmore Hill, showed *Stenanthemum robustum*, *Ruellia citiosa*, *Dianthus alpinus albus*, and *Sagittaria macrophylla*, the latter with white flowers.

Impatiens Holsti, with vermilion flowers, came from Sir Trevor Lawrence, Bart., and *ixra Mars* was shown by Mr. Leopold de Rothschild. See "New Plants."

NEW PLANTS.

Nymphaea zanzibarensis rosea.—A very handsome variety of this blue-flowered Water Lily with large rose-pink blossoms. The variety is very fragrant. From Lord Rothschild, Tring. First-class certificate.

Lilium leucanthum.—This fine form of *L. Brownii* as shown exhibited much variety in leafage, in the external colouration of the flowers and buds, and in size also. This is a garden Lily of much merit. From Messrs. Veitch and Sons, Limited, Chelsea. First-class certificate.

Lobelia Kathleen Mallard.—An excellent bedding variety with double flowers of a deep violet-blue. The plant is said to be a sport from Emperor William, but in habit and colour it is not identical with this kind. The mass of blossom is very remarkable. Exhibited by Mr. A. R. Mallard, Rainham, Kent. Award of merit.

Stenanthemum robustum.—A tall plant belonging to Liliaceae, the white flowers arranged on a dense pyramidal spike. From Mr. Amos Perry, Winchmore Hill. Award of merit.

Godetia Schamini fl.-pl., a pleasing pink-flowered variety that is most useful in the cut state. From Sir Trevor Lawrence, Bart. Award of merit.

Izora Mars (hybrid between *I. coccinea* and *I. Prince of Orange*).—This is a showy and good form. The large pipe of blossoms are well formed and partake of Prince of Orange in colour somewhat. The variety is very free flowering. From Mr. Leopold de Rothschild, Gunnersbury House (gardener, Mr. Hudson). Award of merit.

Canna Niagara.—Perhaps the finest-bordered flower yet seen. The colour of the flower is scarlet, with a rich yellow border. The plant is very dwarf. From Messrs. Cannell and Sons, Swanley. Award of merit.

Dahlia Blush Gem (show).—A fine form, rosy lilac in colour, the base of the florets nearly white. From Mr. Mortimer, Farnham, Slough. Award of merit.

Dahlia Pink Perfection (Cactus).—A very beautiful kind, of a deep rosy mauve colour; very showy. From Mr. S. Mortimer, Farnham, Surrey. Award of merit.

Dahlia Nelson (Cactus).—A showy and beautiful kind, with twisted florets, coloured light maroon, with scarlet shade. From Mr. J. T. West, Brentwood. Award of merit.

Dahlia Daisy Easton (Cactus).—An exquisite self yellow. The florets are long and incurving, rich yellow throughout. From Mr. H. Shoesmith, Westfield, Woking. Award of merit.

Dahlia Stromboli (single).—A very distinct variety, coloured crimson at base, the central portion of the petal flushed white and scarlet. From Messrs. J. Cheal and Son, Crawley. Award of merit.

An award of merit was also given to the strain of hybrid *Pentstemons* exhibited by Lord Aldenham, Elstree (gardener, Mr. E. Beckett).

* * Unfortunately the reports of several shows are left over until next week, that of Brighton among them.

* * The Yearly Subscription to THE GARDEN is: Inland, 6s. 6d.; Foreign, 8s. 9d.

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INTERNATIONAL SHOW AT EDINBURGH.

DURING the forthcoming week the great event of interest to British horticulturists will be the International Exhibition of the Royal Caledonian Horticultural Society, which is to be held in the Waverley Market, Edinburgh, on the 13th, 14th, and 15th inst. Since the institution of the Royal Caledonian Horticultural Society in 1809 it has passed through some vicissitudes, and even crises, but whether its fortunes were on the up grade or the down grade, it has faithfully maintained the objects of its establishment, and has done much to promote and uphold the high standard of Scottish horticulture. Within recent times it seemed as if the society were within measurable distance of seeing its funds gradually diminish and its work severely crippled; but the enterprise of its council, the exertions of its president, Lord Balfour of Burleigh, and, not least, the wholehearted enthusiasm and energy of its secretary, Mr. P. Murray Thomson, have retrieved its fortunes, and for the first time for a series of years the income of last year exceeded the expenditure.

Keen as always is the interest in the spring and autumn shows, and valuable as they are, it has been a wise policy on the part of the council to hold at intervals still greater exhibitions of an international character. These serve several objects, and among them not the least valuable is that of forming records of the periodical advances made in horticulture. Five of these international horticultural exhibitions have been held by the society, but, as the latest of these was held in 1891, fourteen years ago, it cannot be said that there has been undue haste in promoting that of 1905, and from the response made by subscribers and exhibitors it is evident that they entirely endorse the action of the council in promoting this, the sixth of these Edinburgh international shows.

In the fourteen years which have elapsed since the last international exhibition in Edinburgh great changes have taken place in such exhibitions. The competition of private gardeners is perhaps more limited than in former years, a feature due to no lack of

skill or of desire to excel on their part, but chiefly owing to the changes in the establishments under their care. Save perhaps in the plant classes, there is no diminution in the quality of the produce shown, while the improvement made in the direction of a more natural and graceful arrangement of exhibits adds immensely to the value of such shows. What has, however, been lost in the gardeners' sections has been more than compensated for by the trade exhibits, mainly of a non-competitive character. These cannot well be surpassed. The coming international exhibition in Edinburgh will contain some striking examples of these non-competitive exhibits, as we understand that they will be more numerous and varied than have ever been seen at a Scottish show. The interest taken by exhibitors in this show is very great, and in the competitive classes there promises to be an excellent competition. Undoubtedly this has been stimulated by the prizes offered, which are numerous and of great value. They include one which will be most highly prized by the fortunate winner—a valuable silver cup, presented by His Majesty the King, to be awarded to the best exhibit in the competitive fruit classes. A perusal of the schedule shows the comprehensive nature of the prize list and the value of the prizes offered in plate, medals, and money. To award these some fifty judges will be engaged early on the morning of the first day. A new feature of the exhibition will be the awards of medals offered by the society for exhibits illustrative of experiment and research, and the introduction of these awards must add greatly to the instructive character of this great show.

To the many attractions the exhibition will offer to the horticulturist there are added several peculiar to Edinburgh alone. The city itself is one of the most picturesque and beautiful in the world; it abounds with buildings of historic interest, and its streets are full of memories of great men and of great pageants of the past. The Waverley Market is an almost ideal place for such an exhibition, as under its roof can be focussed almost all the exhibits, while the remainder will be accommodated in the Waverley Gardens, on the flat roof of the market; permission for this has been generously granted by the Town Council. Outside the hall also there are many objects of horticultural

interest. Close to it are the Princes Street Gardens, which have of recent years been greatly beautified under the skilful management of Mr. J. W. M'Hattie. The other parks and open spaces are also of interest. All round the city there are private gardens of renown, such as Dalkeith, Hope-toun, Tynninghame, Oxenford, and others, while the nurseries of the leading Edinburgh nurserymen will be found to contain representative collections of trees, shrubs, and other plants.

The railway facilities are also excellent, and there is every promise of a record show and a record attendance. In its great effort on this occasion the society has secured the assistance of a representative committee from the three kingdoms and the Continent of Europe, and there is little doubt that their labours will result in an exhibition unequalled in the annals of Scottish horticulture.

THE ANNALS OF THE LITTLE RED HOUSE.

VIII.—THE MAKING OF THE BORDERS.

THE autumn after we arrived at the little Red House was full of interest, for that was the time to make all the improvements for the coming year.

Amongst other things, the long herbaceous borders had to be made, or rather remade entirely, for it had not been possible to do the work soundly in the spring. They really had been quite gay during the summer with a large assortment of annuals, and we had been saving the seeds of all we wished to repeat. We had a nice lot of tidy little packets marked with the name and date of saving. *Linum grandiflorum rubrum*, *Coreopsis tinctoria* and *coronata*, *Phacelia*, *Clarkias* and *Godetias*, *Nicotiana*, and *Phlox Drummondii*. We had marked the few herbaceous plants we found about the place that we thought worth keeping, and we began quite early in October the work of trenching the borders. By patient waiting we now knew exactly what the whole garden contained, the value of every fruit tree—for most of them had given us samples of their fruit—the position of any bulbs in the orchard or garden, and what *Roses* were valuable, so we could begin our operations with confidence. First of all the *Laurel* hedges which backed the borders required a great deal of attention. Of course, such hedges are rather a misfortune, as their far-reaching roots make such demands on the soil, but, on the other hand, the vivid green of the foliage makes a fine

setting to the plants employed, and as we had no choice in the matter we made the best of it. It was too near the time of frosts to prune, so we contented ourselves with cutting out dead wood and destroying the Nettles and Brambles which had established themselves there.

Large clumps of old-fashioned small-flowered Michaelmas Daisies were reduced or destroyed altogether, as were also some weedy kinds of Helianthus and common Phloxes, then all the borders were well trenched and manured, light soil and leaf-mould and burnt refuse added as required. The beautiful turf margins laid down by some most worthy predecessor required little doing to them beyond the spudding out of a few Plantains and Daisies, and, having been very cleverly edged with wood, kept very even. These and the paths were protected by mats during the digging and trenching, which was done piece by piece. When all was finished kind gardening friends sent us their superfluous wealth, and the borders, nicely and tidily raked over, were ready to receive the newcomers by the first week in November, and then were planted with due regard to height and equally distributed. Of course, it was in many cases not possible to carry out a perfect colour scheme with a mixed lot of unnamed plants, and I must confess the borders looked very bare when the last of our store was bestowed in its position; but the bulbs had still to come. We had placed a somewhat large order with a reliable firm, avoiding the newer and consequently more costly varieties; but, indeed, I do not think you can beat for Daffodils incomparabilis, Stella, Horsfieldi, Sir Watkin, Emperor, Empress, Mrs. Langtry, and Sir Henry Irving, with a liberal supply of Orange Phoenix, Poet Narcissus, and the sweet old-fashioned double white. Then we had also 1,000 Spanish Iris, Montbretias, Hyacinthus candicans, and Polyanthus Narcissus.

The Daffodils we planted five in a group about 1 foot from the verge, putting a little silver sand in with each bulb as a protection against winter damp.

We planted, too, some Tulips, chiefly the Cottage and Parrot varieties. These we never move, and they are flowering better every year.

The Polyanthus Narcissi were given a south border, as they flower early and are somewhat delicate.

Then we had the biennials to put out that we had sown in June—Wallflowers, Canterbury Bells, and Sweet Williams, the last a wonderfully fine strain of Sutton's, which I am still keeping up after four years, also a large supply of Iceland Poppies. White, red, and pink Daisies and Forget-me-nots were planted in a border under the house, and two long beds of Forget-me-nots had pink Hyacinths set in them, which were very charming in the following spring. We had a long list of valuable herbaceous plants, but we felt we must not spend more just then on the garden, for the house was making demands on us too. A list of the simple herbaceous plants we began with may be of use to the beginners of a garden like ours. It is so easy to add the rarer sorts when you have succeeded in cultivating these. My advice would always be not to try for too much at first, and, above all things, not to invest in plants from description; you had far better see them growing first and ascertain whether they will suit your soil and climate. The Iris, for instance, will not grow

everywhere, and among the different varieties of these there is also a difference of opinion about their residences. Very many plants insist on a south aspect, and this may be limited in your garden. Some things, too, refuse to grow under trees, and others exact partial shade. I, personally, think the Irises should have a position of their own, and should not be planted in a mixed border. Their time out of flower is so long compared with the flowering period that a mass of these gives a dull look to their portion of the border. I shall hope to continue this subject in my next article, and to give a list of the most useful plants for the mixed border, with the times of their flowering.

AUGUSTA DE LACY LACY.

PRIZES FOR GARDENERS. SEPTEMBER.

ESSAY ON WATER GARDENING.

A First Prize of FOUR GUINEAS,

A Second Prize of TWO GUINEAS,

A Third Prize of ONE GUINEA,

And a Fourth Prize of HALF-A-GUINEA

are offered for the best Essays upon "Water Gardening."

The essay must not exceed 1,000 words in length, and should describe the best ways of water gardening and the most beautiful plants to use. Some particulars of the plants should be given as to height, colour of flowers, season of flowering, &c. The essays must be written on one side of the paper only, and must reach the Editor of THE GARDEN, 20, Tavistock Street, Covent Garden, London, not later than the 30th inst. Envelopes must be marked "Competition." The Editor cannot undertake to return the MSS. of unsuccessful competitors.

THE EDITOR'S TABLE.

HABENARIA RADIATA AND CANNA KING
HUMBERT.

Mr. W. Müller writes from Vomero, Naples: "I am sending you a flower of *Habenaria radiata* which is now flowering in Mr. Sprenger's garden, and some petals of the famous *Canna King* Humbert. I am astonished that I never have read anything about this *Canna*. It is the most perfect of all in foliage, which is dark red, and the flower is of a fine vermilion colour. I have counted on a single plant more than 300 flowers. It was raised by Mr. Sprenger, and the whole stock was given to Messrs. Vilmorin-Andrieux and Co., Paris. Have any of your readers tried this variety?"

PEACH PEREGRINE.

Messrs. Rivers and Son, Sawbridgeworth, Herts, send fruits of this deliciously flavoured Peach, which was raised by them, and received an award of merit from the fruit committee of the Royal Horticultural Society. The fruit is very handsome, warm crimson shades on the sunny side, and the flavour is exquisite. We have never tasted a Peach so juicy, piquant, and refreshing. It is a notable addition to our hardy and indoor fruits, and a great gain over the flavourless, Turnip varieties that are frequently praised for qualities which we can never discover.

MUTISIA DECURRENS.

Lady Acland sends from Killerton flowers of *Mutisia decurrens*, also the interesting *Pentstemon cordifolius*, with the following note: "The *Mutisia* was planted during the spring of

1904 at the bottom of a west wall. When planted it was only about 2 inches high. This season it has run up 8 feet in height, and is looking the picture of health. It has produced thirty-two flowers, the largest number open at one time being thirteen. Not the least of its merits is the length of time it remains in bloom. The first flower opened during the second week of July, and it will be in flower for another two or three weeks yet. Some of the individual flowers have kept fresh for two weeks."

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

September 12.—Royal Horticultural Society's meeting.

September 13.—International Show at Edinburgh (three days).

September 19.—London Dahlia Union Show at Earl's Court (two days).

September 26.—National Rose Society's Autumn Rose Show, Horticultural Hall, Westminster (two days).

Royal Horticultural Society.—At the suggestion of the Orchid committee the council have adopted the following scheme, which they hope will have the effect during the ensuing year of inducing Orchid growers, both large and small, amateur and professional, to exhibit their already certificated and other choice varieties at the fortnightly shows of the society. Without in any way wishing to alter or curtail the exhibits as at present shown, which they hope will be continued exactly as they are now, they propose to award additional diplomas to plants of exceptional merit shown in one combined group. This group will be composed of all the exhibits duly entered for this special competition in accordance with the schedule. They hope that by this means groups may be brought together representing to a large extent the varieties of the particular species decided upon for exhibit on each occasion, together with the hybrids having that species as one of their parents. At the same time, the society's paintings of the species and hybrids therefrom to which awards have already been given will be exhibited. They believe that these exhibits will have a great educational value to hybridists, orchidists, and to Fellows generally, and they rely upon all Orchid growers to assist them in making the exhibit as complete as possible.—W. WILKS, Secretary.

The Herefordshire fruit growers.—As a means of meeting foreign competition, the Herefordshire fruit growers have organised a co-operative fruit-grading society. The Apples of that county are among the finest in the kingdom, but full advantage has not been taken of that circumstance. The society will now provide suitable empties to members for transporting their fruit to the packing premises, where it will be graded and packed and the packages branded. Premises are being erected at Whitecross Bridge for the reception and despatch of the fruit. The Great Western Railway Company are lending their co-operation, and it is expected that 5,000 boxes will be sent away during the present season.

Chrysanthemum Blush Beauty. For an early display outdoors this Japanese variety can claim distinction for several reasons. First of all, for its good habit and its free flowering, and the plant comes into flower in August, and continues to blossom for many weeks. The blooms possess good form, and are each borne on a long, stout foot-stalk, and are useful for cutting. The colour is blush, deepening towards the base of the florets. The height of the plant is from 2½ feet to 3 feet.—D. B. C.

Fruit tree acreage.—The total number of acres in Great Britain devoted to small fruit is now 78,822, as compared with 77,947 acres in 1904, showing an increase over the latter year of 875 acres, or 1.1 per cent. The acreage covered by orchards is 244,323, as compared with 243,008 in 1904, showing an increase of 1,315, or 0.5 per cent.

A successful exhibitor.—At the Charmouth, Dorset, Horticultural Show, held recently, Mr. John Goodfellow, gardener to the Rev. J. Kennedy, Charmouth, Dorset, was a most successful exhibitor, winning no less than thirty-eight first and fourteen second prizes out of fifty-four entries. Mr. Goodfellow also won the society's certificate given to the competitor winning the most prizes in the subscribers' classes for vegetables and flowers. The silver-gilt medal given by Messrs. Dobbie and Co. to the exhibitor who gains the greatest number of points, was also won by Mr. Goodfellow, whose success we should imagine must constitute a record.

The "Gardeners' Chronicle" of America.—This is a newly-established journal, devoted to the interests of amateurs and their gardeners, published in Jersey City at ten cents per copy, and adopted as the official organ of the National Association of Gardeners, the objects of which are to "unite in one body for mutual and benevolent benefit and protection of all professional gardeners of good moral character." Full details are given as to the objects and management of the society, details of which (says *Indian Gardening*) might profitably be studied by the promoters of the analogous British Society.

Early-flowering Chrysanthemum Bertie.—Although this pretty little flower is classed as a Japanese kind, it much resembles a small reflexed or rather large hybrid Pompon in its character. It bears quite a long-continued display of pretty blossoms of a yellow, flushed crimson colour. In Mr. William Sydenham's collection at Tamworth there is a small bed of this sort that has been in flower since June last, and is still effective. Ordinarily, late August and September are the proper periods of flowering. The plant is about 18 inches in height, and is quite sturdy and free flowering.—D. B. C.

Early-flowering Chrysanthemum Norbet Puvrez.—Among the hardy Japanese kinds this is still one of the best. Few growers appear to have it in their collections, which is a fact much to be regretted. Some years ago it was distributed by the late M. Simon Delaux, who gave us so many other good things at the same time. So well does it stand in the estimation of good judges to-day that nothing but praise can be heard of its merits. The plant is branching in growth, and seldom exceeds 18 inches in height. It is sturdy, too, and is ideal for the front rows of the hardy border. Its colour is rich golden bronze, tinted with salmon, quite a unique shade of colour. In the Tamworth collection this plant is doing remarkably well at the present time.—D. B. C.

The Japanese Wineberry.—It must be twenty years or more since the Japanese Wineberry (*Rubus phoenicolasius*) was introduced to our fruit gardens, and from that day to this discussion of it has been going on. So far as its merit as an ornamental shrub is concerned, no one can dispute it. It has attractive foliage; its canes and leaf-stalks are covered with crimson hairs, as are its fruits in their embryo stages. Then the oddity of the berries being enveloped in their calyces until the fruit ripens, when they unfold displaying the ripe flesh of the berries, is to be added to its meritorious features. As to its merits as a fruit, I think it possesses a good share of them. Its yield is good—as good as that

of any other kind—but it is not of a first-rate quality; only second-rate, I would say. The fruit comes in great clusters, twenty to thirty in a bunch, making a great display, and a most ornamental one, when having in mind its use as a shrub. Many of those who have condemned it may not have treated it right. New beds of it do the best of all, and, as in the case of other Raspberries, a bed should be set out a year in advance. Get a loamy place, well enriched, and set in it a bed of strong young plants of this Raspberry next spring. Cut the plants well, almost to the ground. Young canes of great vigour will result. Let them grow as they will for the season, cutting them to a proper height the spring following, before they start to grow. When it is a case of an increase of plants being the object and no fruit, in addition to the usual way of increasing Raspberries by cutting up pieces of roots in spring, the growing shoots may be layered in summer, each forming a plant. Sometimes two or three layers can be made of one shoot.—JOSEPH MEEHAN, in *The Florists' Exchange* (New York).

SWEET LAVENDER.

A blue-grey flower forest rears
Its phalanx of ten thousand spears,
And as the summer wind wafts through
The fragrance of that quivering blue
We greet our English flower; the best
And favourite o'er all the rest,
Though other blooms may show more bright,
"Sweet Lavender," our heart's delight.
A myriad old-world scenes arise,
And float before our dreaming eyes,
Of English homes, with maidens spinning
The "fairy flax" to purest linen;
Of ancient carved chests that hold
That bridal dowry's snowy fold,
And laid between, with tender care,
Sweet Lavender sheds perfume there;
Of quaint old London and its cries,
"Good citizens, who buys? who buys?
Buy my Sweet Lavender in posies,
Grown all among my Cabbage Roses."
So fades away the distant cry,
"Buy my Sweet Lavender. Oh, buy!"
On terraced lawn, by cottage door,
Flower—friend of all, though rich or poor.
Crowning the summer's crown of leaves
With purple of its fragrant sheaves.

R. THOMPSON.

Gesnerads at Kew.—The great value of Gesneraceous plants for blooming at the end of the summer and early autumn is very apt to be overlooked, for though Achimenes and Gloxinias are largely grown, the others are neglected. During a recent visit to Kew I was much struck with the great beauty of many Gesnerads, to which at least one structure was largely indebted for its floral display. Some of the Gesneras proper, with their beautiful velvety foliage overtopped by spikes of bright-coloured blossoms in which various hues of yellow and scarlet predominate, were very beautiful, while the quaintly-marked yet showy flowers of the Tydæas served to remind one of their great beauty and almost persistent flowering qualities. *Sinningia regina*, too, a comparatively new plant, was flowering freely. This was first shown at the Ghent Quinquennial Show of 1903, and was later on distributed by M. Benary of Erfurt. It is a Gloxinia-like plant, with dark green velvety leaves lit up by light-coloured veins. The flowers, which are very numerous, remind one in general appearance of the drooping section of Gloxinias, which are now little grown in gardens. Altogether this *Sinningia* is a very pretty free-flowering plant, and it will doubtless become popular. The colour of the flowers is pale violet. The Achimenes at Kew, too, had not all passed out of bloom, as they have in many gardens by this time, one in particular, *Achimenes gloxiniaeflora* discolor, being very bright. The popular *Saintpaulia ionantha*, with its mass of

rich purple blossoms, was, as it always is when in good condition, very beautiful, and a delightful companion to it but rather taller in growth was noted in the uncommon *Niphaea oblonga*, which was, according to the "Dictionary of Gardening," introduced from Guatemala in 1841, but which had never before come under my notice. These few notes are by no means intended to be exhaustive, but sufficient has been said to show the value of Gesneraceous plants in general for flowering, as, apart from all these, it is quite possible to have Gloxinias still in good condition. In proof of this may be mentioned the fact that I potted some one year old tubers last spring, and as soon as it could be safely done they were removed to a cold frame, where they have been very showy, and now at the end of August some of them are still in flower.—H. P.

Lilium auratum.—I send you a photograph of a *Lilium auratum* which is growing in my garden. In the spring of 1904 I planted one bulb. It flowered very well that summer. In the winter I covered it with ashes, and put a large pane of glass on the top of all. This spring two more bulbs have appeared as well as the original one. There have been twelve flowers from the three bulbs. The flowers measure 11½ inches to 12 inches across. The height of the three stems is respectively 54 inches, 49 inches, and 22 inches.—FRANCES RAMSBOTHAM, *Garstang, North Lancashire*. [Unfortunately the photograph was not suitable for reproduction.—Ed.]

The bottling of fruit.—A useful leaflet on this subject has been issued by the University of Leeds and the Yorkshire Council for Agricultural Education. The bottle recommended is known as the "English Atlas," a wide-mouthed bottle, with a flat indiarubber ring on the neck, upon which a metal lid is tightly secured. It is sold in various sizes, at 4d. for a 1lb. bottle, 4½d. for one to hold 2lb., and 6½d. for one to hold 3lb. Sound fruit not over-ripe should be chosen and packed firmly in the bottle to within an inch of the top. In the case of soft fruit, the bottom of the bottle should be slapped with the hand to ensure firm packing, while such fruits as Plums should be arranged by means of the handle of a wooden spoon. Clear, cold water should be poured into the packed bottle until the fruit is covered, leaving an air space of half an inch over it. Then the lid should be screwed tightly on to the rubber ring, the bottles being next stood up loosely in a boiler of cold water, allowing the temperature to rise gradually to 160° Fahr., which will take about one and a half hours. Then the fire should be removed, so that the fruit will cool gradually. When cold it can be removed to a cool, dry place, standing the bottles upright.

Thunbergia natalensis.—This uncommon but beautiful *Thunbergia* was recently flowering freely in a narrow border against one of the walls of the temperate house at Kew. While most members of the genus are shrubby climbers, and the popular *T. alata* is an annual, this differs in being more of a herbaceous perennial, for it has a thickened or tuberous root-stock, from which spring annual stems 2 feet or so in height. The oblong-shaped leaves 4 inches to 5 inches in length are oppositely arranged, and from their axils towards the upper portion of the stem the flowers are produced. They are somewhat tubular in shape, with a widely expanded mouth as in most of the *Thunbergias*, fully 2 inches across, and in colour a delightful shade of pale blue, with a lighter throat. The basal portion of the tube is of a creamy tint outside, and yellow within. According to the books it was introduced from Natal in 1857, but it has never been my good fortune to see it in bloom before, and the large Gloxinia-like flowers borne on rather weak-looking herbaceous stems at once arrested attention.—H. P.

LILACS.

IF the Japanese had Lilacs as varied and good as their Cherries and Plums they would probably have a Lilac festival. The late Sir Richard Owen used to invite his friends at "Lilac-time" to his garden at Sheen, and where these lovely shrubs are well done they afford beautiful effects in the home landscape as well as charm in the hand and fragrance. To no family has the harm done by grafting been more injurious than to the Lilac. Everywhere grafted on Privet for the sake of cheapness and ease of increase, it has proved an alliance that they resent by dying. We lost ten years through such a collection, grafted on Privet, that we got from M. Baltet; instead of growing up they grew down, and nearly all of them have slowly perished. And so it has been in many gardens where Lilacs have been put in the shrubberies but rarely show their fine value, though so many superb varieties have been raised in recent years. In our country the best results from Lilacs are often seen about farmhouses and in small gardens, where the Persian Lilac on its own roots, and perhaps a few common kinds also, are grown. The degradation of the Lilac is best seen in the London squares like Lincoln's Inn Fields and St. James's Square, where the bushes are allowed to run wild, but are out underneath to allow of the useless and ugly digging. When it sows itself in the open the bush naturally takes a pretty habit, but this way of pruning inverts its shape and is ruinous in all ways.

What we have to secure is the full value of the varieties that we now have, with their long racemes beautiful in colour if only well grown. To effect this the first thing is to insist that none shall be grafted on the Privet. The best way to increase Lilacs is by cuttings or layers, or by grafting on vigorous plants of the common Lilac. Some growers say that they will not grow so well on their own roots, but this is not the case. Seeds of the finer varieties should be sown, and in that way one might get strong plants and perhaps some charming new kinds. As to arrangement, the best way is to group our Lilacs in the sunlight—they are too often put away among mixed shrubs where they deteriorate owing to crowding and other causes. No plants more deserve a clear space in the open sun where they can ripen their wood and be free from the encroachments of coarser neighbours.

Pruning.—Lilacs are too often neglected in this way, though few shrubs are better worth pruning, without which they are apt to become a tangled mass of shoots, and we do not get the fine full thyrses of bloom that are seen in French gardens. On fading the flowers should be removed, and the small and weak shoots also if the plants are too "stalky," the aim being to secure healthy and open growth during summer. Cutting back in winter is wrong, because the flowers are produced on the wood of the previous year, and cutting back to a stiff ugly outline does not deserve the name of pruning. To prune is to help the natural shape of the bush and let the light into it, so that it can concentrate its energy on a number of strong flowering-shoots.

Soil.—We read sometimes that the Lilac will do in any soil, and so it may in some districts where the soil is warm and good, as in much of Ireland, where the Rouen Lilac, commonly called the Persian, makes such lovely trees. In certain heavy soils Lilacs are slow in growth, and do not ripen their wood well or flower so freely as in soils of an open nature. If we are not so fortunate as to possess this open soil we must make it so if the Lilacs are to do well. Cold places in valleys are not so good for them, especially where heavy soil occurs, because, being early, the bloom is often caught by late frosts. Therefore, in addition to warm soil, we should try and secure positions not too low down and somewhat sheltered. Coming from a warmer and sunnier land than our own—Transylvania and the regions

near—very cold soils and situations are against success.

Increase.—Lilacs grow freely from seed, if sown as soon as ripe. Cuttings are best made from the young wood in early summer, struck in sand on a hot-bed where they root in six to eight weeks. Layering should be done in early autumn, or suckers may be taken in spring and root readily. When once we have the Lilac on its own roots, increase from suckers is easier than the common nursery way, though some kinds sucker less freely than others. Layers are the best for high-class work. As to grafting, though the common Lilac is far better than the fatal and ugly Privet, it is not so good as "own roots," for there is always the chance of finding flowers of a choice variety mixed up with those of the common kind. Besides this, where the flower garden has any such collection of shrubs and flowers as we now possess, the gardener has no time for the labour of watching and removing suckers, which in a rational system of propagation do not trouble him.

The Best Kinds.—Though some of the old varieties were beautiful—even the common Lilac when well grown—to have a good Lilac-time it is essential to have the newer varieties raised in France and remarkable for their size and range of colour. The best are:

Singles.—White—Marie Legraye, Princess Alexandra, Frau Dammann, Mme. Moser, alba pyramidalis. Pink—Dr. Regel, Eckenholm, Fürst Lichtenstein, Schermerhornii, Jacques Callot, Lovanensis. Dark flowers—Dr. Lindley, Ludwig Späth, Aline Mocqueris, Toussaint L'Ouverture, Volcan, Philémon, Président Massart.

Doubles.—White—Mme. Lemoine, Mme. Casimir Périer, Obélisque, Mme. Abel, Châtenay. Lavender and blue—Alphonse Lavallée, Président Grévy, Lamarek, Léon Simon, Monument Carnot, Condorcet, Doyen Keteleer, Guizot, Marc Micheli. Dark shades—Charles Joly, Colbert, Georges Bellair, La Tour d'Auvergne, Souvenir de Louis Thibaut, Maréchal de Bassompierre. Rosy Lilac—Mme. Jules Finger, Rosea grandiflora, and Emile Lemoine.—*Flora and Sylva* (July).

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

NICOTIANA SANDERÆ.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I cannot agree with your correspondent about this plant. I have plants at present quite 5 feet high and 4 feet through in 8½-inch pots with splendid large flowers, nearly as large as *N. affinis*, and with quite four times as many flowers as one ever sees on that kind. *N. Sanderæ* has been in flower at least six weeks, and looks like lasting as long again. It is a good flower to cut, as it lasts well when in glasses, short or tall, having stems 3 feet long. I can say when used for table decoration with *Gypsophila paniculata* it is grand, the colour most striking, especially where electric light is used. I will admit it has no smell. I find you must not grow it too cold. It is best in frames kept a little close, with a damp atmosphere and plenty of stimulants when the roots have permeated the soil. My experience of it when grown cold is that the colour is not pleasing and the plants do not grow so well.

A. W. TAYLOR.

Chesterford Park, Saffron Walden, Essex.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—My experience with *Nicotiana Sanderæ* proves quite opposite to your correspondent's on page 103. I put six plants in a small round bed, and at the present time they are one mass of

bloom, and have been greatly admired. Certainly the flowers are not so large as those of *N. affinis*, but they are a very pleasing colour. They want to be planted in clumps to get the right effect. I think it is an excellent addition to the *Nicotianas*, and those that want scent can still grow *N. affinis*.

C. WILLIAMS.

The Gardens, Belmont House, Doncaster.

BISHOP'S WEED.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Regarding "A. D.'s" enquiry as to what plant is meant by Bishopweed, I may say it is *Ægopodium Podagraria*. It is also known as Goutweed and Herb Gerard. It increases by means of underground runners, and is a terrible pest in a garden, especially if it gets among the roots of shrubs, &c. It is commonly known in Scotland as Bishop's Weed, but in several localities in England I have been unable to find any name for it.

JOHN COUTTS.

Killerton Gardens, Broadclyt, Devon.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I see in your issue of the 19th ult. that "A. D." wishes to know what the Scotch call Bishop's Weed. The enclosed is the plant. Unfortunately, we still have it, but only now under a thick Holly hedge. It is almost as difficult to get rid of as Mercury, as it grows happily in the densest shade. It is not a lawn plant.

Sussex.

E. G. K.

[The plant sent is *Ægopodium Podagraria* (Goat Weed, Gout Weed, Bishop's Weed, Herb Gerard), a troublesome weed, difficult to eradicate when once established. It is spread over Europe and Western Asia, but is not considered a native of this country, although it is very abundant in waste places near buildings or gardens.—Ed.]

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In your issue of the 19th ult. your correspondent "A. D." asks, What is Bishop's Weed? The only plant I know which is sometimes called by that name is *Ægopodium Podagraria*, more commonly called Gout Weed, but I have never seen it on a lawn.

Tunbridge Wells.

E. W. NIX.

ELDORADO POTATO.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—It may interest your readers to know the result of one tuber of the above. I bought in March this year a 2oz. tuber in the Birmingham Market Hall. To-day I dug up the seven small plants I got off it (by growing it on in moss and leaf-mould in a frame). There were 149 tubers, weighing 15lb. 4oz.; largest tuber 6½oz.; no disease, though other varieties in close proximity in same ground had diseased considerably. A few of the tubers are slightly rough in the skin, the others quite clean and smooth. My Early Puritans did very well also, some of the plants bearing twenty-two to twenty-five good tubers, and very few had less than eight.

J. R. FRASER (Major).

The Island, Romsey, Hants.

GARDENERS AND RAILWAY TARIFFS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Much has been said regarding the treatment gardeners and fruit-growers receive at the hands of the various railway companies. We cannot expect them to handle small consignments at the same rates as those by which whole trainloads of produce are carried. When we can send different stuff by the truckload there is far less cause for grumbling, but very few boons are granted by the companies without great pressure being brought to bear upon them; it is no use to

grumble among ourselves, grumbling will not bring about the much-needed reforms. Competition always lowers rates, and to my mind the motor-car will soon be a formidable rival to railway companies, and will in time place us on a proper footing.

J. H. C. WOODRUFFE.

Longfield Hill, Kent.

GARDENING IN SUBURBS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Like other town gardeners, I was greatly interested in Miss Franklin's prize paper published on the 19th ult. Of course "suburbs" is a wide term, and applies equally to a country town, where the atmosphere is clean and pure, and to towns like Leeds, where the air is poisoned by the fumes of countless works. I notice the first three Roses on her list are Hybrid Perpetuals, which in my experience are useless for town gardens, partly because their period of flowering is so short, but mainly because (as she states in paragraph V.) the rough leaves get so clotted with dirt the plants never look well, and after the second year do little good. The hardier Teas, such as Mme. Lambard, and all the Chinas, especially Mme. Eugene Resal and Laurette Messimy, throw off the dirt, and with occasional syringing in dry weather flower and look healthy all the summer and autumn. The wickuriana type do well for the same reason. I wonder if other town gardeners find the same. Violets will hardly grow at all, and Primroses and Christmas Roses, unless under glass, look too dirty to be beautiful. Bulbs of all kinds flourish, and Irises of all sorts—Spanish, Japanese, Siberian, German, and English—keep up a constant succession throughout the summer.

Leeds.

B. K. G.

THE TITS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In regard to your correspondent who says that the tits are so destructive, I should like to mention that if you feed them you will always find they are a great boon. I always nail one or two Coccanuts high up on the house and nice cooked or uncooked thick pieces of fat either on the house hanging from a long nail or else hung up on my arch, and neither kind of tits hurt my flowers, but I notice them after a good feed at the fat, &c., go and carefully look all over the stems of plants and eat up all insects, and we find the same with the sparrows. They never hurt my plants.

M. K. B.

NOTES ON HARDY PLANTS.

KNIPHOFIA R. WILSON-KER.

RED FLOWERED Torch Lilies of recent introduction have not always proved distinct from older forms, and really good plants can still be counted on the fingers of both hands. Wilson-Ker's plant, however, must be considered a real gain. It is a veritable giant, growing 6 feet in height, the leafage vigorous and borne erect, as in *Gynarium*, forming a handsome clump for the shrubbery, wild garden, and for waterside. It is very hardy also, and wonderfully free-flowering for such a giant form. The flower-stems are about 3 inches in circumference, and they have long spikes of coral red flowers that expand widely at the mouth and are perfectly cylindrical in outline. A darker veining of red traverses each tube, and a little yellow may be seen at the petal tips, but generally, and at a distance of a few yards, nothing but the brilliant coral red is apparent. Another good feature which removes this hybrid from the rank and file of Torch Lilies is the absence of any glaucous grey colouring at the top of the spike;

the undeveloped buds are nearly as brightly coloured as the perfect flowers. Grown with scores of other kinds in a large collection, it is a long way ahead of those in its own colour range. The inflorescence exceeds 1 foot in length, and gradually tapers from base to summit.

GENTIANA SEPTEMFIDA.

TOWARDS autumn, when alpine flowers in bloom are scarce, *Gentiana septemfida* and its variety *cordifolia* are more appreciated than they would be were they to flower when other alpine flowers are in full beauty. They are, it must be said, however, so beautiful in themselves that they would well repay the little care they require were they to flower when rock plants are most plentiful. While the typical *G. septemfida* is sometimes as much as 1½ feet high, the variety *cordifolia* is dwarfer, and is exceedingly neat and pleasing. From seeds these plants will vary both in stature and in the colour of the flower. Some seedlings will not be more than 4 inches or 5 inches high, while the colour of the blooms may range from pale to deep blue. Unlike some of the *Gentiana*s, which come slowly and unsatisfactorily from seeds, *G. septemfida* and its variety come comparatively quickly and freely from seeds, especially if these are sown as soon as ripe in a pan under glass. Both are of easy culture, but they object to being burned up in long-continued dry weather by full exposure to the sun, combined with dryness at the root. I have found them do best in partial shade when on a light and dry soil, and it is only when there is some moisture underneath the roots that these *Gentiana*s can stand dry weather in full sun. With partial shade and a rather moist soil they will be found satisfactory and very beautiful.

THE COTTON THISTLE.

(*ONOPORDON ACANTHIUM*.)

THE accompanying illustration is from a photograph taken in the Rev. J. F. Hasting's garden at Martley, near Worcester. The Thistle, of which there were several specimens, was about 9 feet high. When in full flower this is a noble plant, and most picturesque in appearance.

POTENTILLA TONGUEI.

THIS little *Potentilla* is of hybrid origin, and a very pretty plant for rock gardens. The leaves are in close flattened tufts, from which issue many trailing, leafy stems, thickly studded with charming little blossoms, coloured a rich orange, barred with terra cotta, and spotted vivid crimson around the cluster of anthers. Like most *Potentilla*s, this hybrid is of rather loose habit, but in so small and charming a plant it must be regarded as an advantage. Planted in a recess behind a rocky ledge, its flowering growths could, by a little persuasion, be trained to drape the boulder from the ledge, thus securing for it the position where it would be most likely to thrive, and



THE COTTON THISTLE (*ONOPORDON ACANTHIUM*) IN A WORCESTERSHIRE GARDEN.

where it could be displayed to the best advantage. The flower stems often exceed 2 feet in length, and are never raised above the soil more than 3 inches, so that some raised position is really necessary. It begins to flower in May and continues more or less freely throughout summer.

G. B. M.

LILIUM AURATUM TASHIROI.

THIS Lily does not exceed 3 feet in height, and may not inaptly be described as a dwarf *L. a. platyphyllum*. It is on account of this



BANK OF ROSES IN THE GARDEN AT AVON CASTLE.

restricted growth that it is to be preferred as a pot plant to the type. The leaves are rather smaller than those of platyphyllum, but the flowers are fully as large and quite as fine. It is nearly two years since I purchased a few bulbs of it.

Last autumn they bloomed, and they are now again in flower. Though grown in pots, I have not forced them. They have been out of doors all the summer, and are simply moved into the greenhouse when the buds are ready to open. The bulbs are left in pots all the year, but, of course, in winter are placed where they are protected from frost. I enclose a photograph of a plant (two stems) in greenhouse having twelve perfect blossoms all out at the same time. Also a photograph of a head of five flowers cut for the house. W. R.

[We thank our correspondent heartily for the photographs.—ED.]

STOVE & GREENHOUSE.

IMANTOPHYLLUMS (CLIVIAS).

CLIVIAS form the most useful class of plants we have either for supplying cut blossoms for the decoration of the conservatory. No class is likely to produce better results than these if they are only treated in the ordinary way. They do not require much heat; in fact, they may be wintered in a cool house provided frost is excluded, but for them to be of the greatest value a gentle heat should be given them about the middle of December in order that they may bloom from January onwards. When grown to supply cut flowers large plants are preferable, as more bloom can be then cut from a limited space. I had recently a number of large plants in 16-inch pots, with an average of twenty spikes on each; these I find most useful for cutting, but when grown for decoration small plants are best, as they can be arranged to greater advantage.

In beginning with new and rare varieties, it is well to allow them plenty of pot room, as Clivias are gross feeders and delight in an abundant supply of water during the growing season. If potted in light rich soil and given due attention they will make off-sets freely, so that a stock can soon be worked up. When the plants have attained a fair size the roots can be restricted, provided abundance of nourishment is given them

during the time they are making their growth. Pots 9 inches or 10 inches in diameter are suitable for growing plants in to produce cut blossoms. Plants of this size are also useful for large conservatories, but for rooms or for arranging in groups those having one spike are preferable. A temperature of about 50° suits them well; in fact, no greater heat should be given unless it be on bright sunny days, when air can be given, for when brought into bloom gradually the flowers have more substance.

When the plants have finished flowering they should be given a temperature of not less than 45° till they have completed their growth, after which, should their room be required and the weather be warm enough, they may be placed out of doors for the summer months, where they will take no harm. The amateur will find these plants most useful for growing either in the conservatory or the vinery; they are of robust habit, with leaves of a deep lustrous green, and hardly ever attacked with insect pest. Most gardeners are well acquainted with the old *Imantophyllum miniatum*, but there are now many new varieties, some of which are most beautiful, the trusses of bloom are larger and more symmetrical, the individual blooms also larger and of a better shape. The colours, too, are more attractive. Admiration is one of the finest of the improved forms. The truss is probably the largest yet produced. *Optima* is the largest flowered variety and one of the most brilliantly coloured; it is a bright orange-scarlet, with a light yellow band at the base of each segment and white on each side of it.

T. B. FIELD.

CACTI.

[In reply to "Londoner."]

THE culture of Cacti is by no means difficult under glass where frost is excluded, provided two vital essentials be kept in mind, viz., that they cannot stand much moisture at the root, and require as much light and sunshine as possible. In their native habitats they grow in sandy or rocky soil under the driest possible conditions, and are literally baked day after day in the hottest sunshine, except in the short periods of the rainy season. Under these conditions the plains and hill flanks are dotted with numerous species, some huge and many small, the larger ones standing out in the landscape like immense prickly Cucumbers, 10 feet or 15 feet high, sometimes branched and sometimes merely bunched together at their bases in groups of a dozen or so, while the smaller ones assume all sorts of shapes,

from rambling, snake-like growths to what appear to be heaps of prickly cannon-balls. The *Opuntias* or Prickly Pear tribe vary this on somewhat leafier lines, their thick, flat, tennis-bat shaped pseudo leaves forming large bushes in some cases, while in others the same genus covers the ground with terribly spiky masses, waist deep, and formed of bunches of short growths like links of a ship's cable, mounted on a jointed stem of similar make (*Opuntia horrida*). As Cacti range from the hottest tropical regions right into the moderately warm temperate ones, a few being even hardy under dry, sunny conditions, the various species, of course, differ in their temperature requirements. But we have seen even reputedly tender ones of the cannon-ball type thriving where frost was keen enough to produce 5-foot icicles on the railway tanks in the vicinity and snow was lying inches deep about the plants themselves. This hardiness, however, was undoubtedly the outcome of vigour induced by brilliant sunshine and perfect drainage, the latter evidenced by their growth on mere rocky rubble at an elevation of about 2,000 feet above sea-level. Obviously, therefore, the secret of success is the nearest possible approach to these conditions under cultivation. The roots of Cacti appear to serve mainly as anchors, and it is probable that they gather the bulk of the essential moisture from the night dews rather than from the soil. This implies only enough pot room to accommodate the plants, ample drainage must be provided for, and the soil should be a sandy compost of preferably porous stone rubble intermingled with a little leaf-mould. The *Phyllocacti*, by their structure, indicate a capacity for more shady and humid conditions than those of the *Cereus* or *Opuntia* tribe, since it may be taken as a general principle that the larger the leaf area of a plant the shadier and damper is its native habitat. The arrangement of Cacti under glass should, therefore, be guided by this if, as is usually the case, some portions of the house be less well lighted than others, and the nearer the glass the better for the most sun-loving types. The *Epiphyllums* require somewhat warmer treatment than mere exclusion of frost, but most of the *Opuntias*, *Melanocacti*, *Phyllocacti*, and *Cereus* would do well in an ordinary greenhouse if afforded plenty of air and ample sunshine, and kept as nearly dry at the roots as is consistent with bare existence during the winter or dormant period. When in growth water may be supplied a little more liberally, but never in such a way that the soil becomes sodden. Cacti are easily propagated by their joints, which after severance should be laid on the surface of the soil for a few days before insertion therein. In their native haunts Cacti propagate themselves freely in this way, their joints being often very brittle, and when broken off by wind or animals rooting where they lie without any aid whatever.

CHAS. T. DRURY, V.M.H., F.L.S.

THE ROSE GARDEN.

BANK OF ROSES AT AVON CASTLE.

I SEND you a photograph of a bank covered with Dorothy Perkins Rose, which may interest some of your readers who have to contend with similar steep slopes in the vicinity of dwelling-houses. The results have been very satisfactory. Other climbing Roses are planted alternately with the one in question, but it was not until Dorothy Perkins was in flower that we got a really pleasing effect. As you will see, they are planted at the foot of the bank, and as the growths extend they are pegged down. We intend this autumn to try Lady Gay for the same purpose; but most of the Wichuraiana Roses are well adapted for covering banks, and might be used far more extensively than they are.

G. B.

ROSE DOROTHY PERKINS.

MR. PARKER, East Finchley, kindly sends a photograph of Rose Dorothy Perkins growing in a suburban garden, with the following note: "This is one of five climbing or pillar Roses I planted last November. They are all growing at the edge of the lawn, about 1 foot from the path and 10 feet apart. I cut out circular holes in the grass, 2 feet in diameter and 3 feet deep, filling them with good loam well mixed with bone-dust and a few inches of old manure at the bottom, resting on about 4 inches of broken bricks. They are now sending up strong growths from the base which promise to soon reach the top of the pillars at the rate they are growing. I think this proves that, given comfortable quarters, climbing Roses are as satisfactory as any to grow near towns."

BARBADOS BANANAS.

THE prospect of the above trade ranking as a permanent and well-established industry at Barbados is being rapidly realised, and will become more and more important as the quality of the fruit becomes better known in this country. Though the big, fat fruits of the Costa Rica and Jamaica varieties are by no means to be despised—and would probably suffice to satisfy the appetite of an epicure, were there no better fruit to be had—when once the smaller or thin-skinned form imported from the Canaries and now from Barbados, and furnished by *Musa Cavendishii* has been tasted, there can be no doubt as to the superiority of the latter. Besides this, the systems adopted in the exportation of the fruits of the two kinds from Jamaica and Costa Rica and from Barbados are different, for while the former arrive in what is known as a "naked" condition—that is, in loose bunches, by which the skin gets more or less bruised, and consequently blackened—the latter are always carefully packed in crates, each containing a single, though sometimes a double, bunch, and these bunches are each first wrapped in a sheet of cotton wool, then in soft paper, and carefully laid in a bed of dry Banana "trash," namely, the leaves of the Banana itself, after which the slats are nailed on the crate, and more dry leaves pushed in between to make the bunch steady, but at the same time to leave it without pressure from any point. The result of this is that the fruits are not bruised, and when unpacked each "finger" is of a delicate and uniform green colour, and, after hanging in a dry or warm room for a short time, they gradually change to an uniform pale yellow colour. Being so lightly packed the air circulates through the crates, and thus heating or sweating is prevented in the ship's hold.

It has been suggested that the same system of packing might be adopted with advantage with the Jamaica fruit, but the following explanation may be given why it was not done at first, and why it has not since been adopted. About thirty years ago the shipment of Bananas from Jamaica to New York began in a small way. As it was found that the fruit arrived in America in good condition without being packed in crates, the system of not packing became the general use, which has been continued to the present time.

At a later period, when the question arose as to the exportation of the Jamaica fruit to England, Mr. (now Sir Daniel) Morris strongly urged the desirability of packing

them in crates in the same way as the Canary Bananas, but the suggestion was overruled, as it was stated that owing to the enormous quantity shipped at one time it would be impossible to find sufficient crates for the purpose, and, further, that the price likely to be obtained for Jamaica Bananas would not justify placing them in crates.

At present a much larger quantity of Jamaica Bananas are imported and consumed in this country than from Barbados, but it has been before said the trade in the latter is a growing one, and as the demand increases so the cultivation will extend.

It may not be generally known that nearly all, if not all, the consignments of Barbados Bananas are carried by the fortnightly boats of the Royal Mail Steam Packet Company, and are landed at Plymouth. Through the courtesy of Messrs. W. Pink and Sons of Portsmouth and Plymouth, to whom all the consignments of Bananas from Barbados are made, I had the opportunity last June of going out to the Plymouth Breakwater to meet the mail steamer *Trent* and see the unloading from the capacious holds of the liner some 1,500 or 1,600 crates of Bananas from Barbados. It is a busy scene, for the moment the steamer anchors inside the breakwater the Great Western Railway Company's tender (which has conveyed us and the post office officials who are to take over the mails) draws alongside, and the mails, bags and boxes, as well as sixteen passengers out of the 200 odd on board, are taken to shore. At the same time the empty lighters which have been waiting the arrival of the vessel are towed to their positions on each side, and the delivery of the fruit cargo commences. The iron doors which cover the holds are opened, and by the aid of cranes eight or nine crates are lifted from the bottom of the vessel at one time, slung over the ship's side, and lowered into the lighter. The lifting of so many crates at one time is effected by lowering a huge square and stout tarpaulin sheet. Into

this the crates are put, and the four corners being brought together and hooked on to the pulley, they are raised from the hold and dropped in perfect safety in the lighter. In developing this new Colonial industry great credit is due to all the officers of the Imperial Department of Agriculture, as well as to the officers of the Royal Mail Steam Packet Company.

JOHN R. JACKSON.

Claremont, Lympstone, Devon.

TREES AND SHRUBS.

RECENTLY-EXHIBITED SHRUBS.

VISITORS to the meeting of the Royal Horticultural Society on the 1st ult. had a good opportunity of seeing some of the finest shrubs at that time in flower, included among them being some new kinds, as well as many old favourites. No less than four awards of merit were given to hardy shrubs, a number which at one meeting has not been exceeded for some time. Those so honoured were

A VARIETY OF COMMON BARBERRY (*Berberis vulgaris foliis purpureis macrophylla*).—A particularly fine form of the purple-leaved variety of the common Barberry. Until the present time it does not appear to have been distributed, but as shown it should, in spite of its outrageously long name, become very popular. The ordinary form colours best in a fairly hungry soil and in a sunny spot, conditions which are likely to be equally favourable to the newer one.

BUDDLEIA VARIABILIS MAGNIFICA. — When *Buddleia variabilis* was first introduced from Central China it attracted much attention, but few, if any, were at that time prepared for the great diversity that may now be found in different individuals of this species. Just three years ago the variety *veitchiana* was given a first-class certificate by the Royal Horticultural Society, and since then it has made great headway in popular favour. Briefly, *veitchiana* may be described as a greatly superior form of the type, and now the new comer (*magnifica*) shows a considerable advance on the previous one, the flowers being much richer in colour.



BANANA TREE WITH TWO BUNCHES OF FRUIT READY FOR CUTTING.

CANADIAN ELDER (*Sambucus canadensis*). — This appears to be the correct name of the Elder grown for some time in nurseries as *S. pubens* or *S. pubens maxima*. Such may or may not be the case, for *S. canadensis* is said by Loudon to have been introduced in 1761, and, if this is the same, it is strange that its merits as an August-flowering shrub should have been so long overlooked. It forms a large, bold-growing shrub, not so tree-like as the common Elder, while, apart from the fact that it does not flower till long after the others, the blooms are borne in immense trusses.

SPIRÆA AITCHISONI. — A noble *Spiræa*, which was at one time confounded with the well-known and deservedly popular *S. lindleyana*. From that species *S. Aitchisoni* may be readily distinguished by its whiter flowers, its smoother and deeper green leaves, and reddish stems. In habit, too, *S. Aitchisoni* is more spreading and less prolific in suckers than the older kind. While *S. lindleyana* is a native of the Himalayas, *S. Aitchisoni* was discovered by the late Dr. Aitchison in the Kuram Valley, Afghanistan, and first flowered at Kew about fifteen years ago. Besides the above-named subjects there were several that at least deserve special mention, and only the fact that they had previously gained honours prevented them from having their merits officially recognised. Very beautiful and interesting were

BERBERIDOPSIS CORALLINA, a delightful member of the Barberry family, which, when in good condition, forms a climbing or rambling shrub. The ovate leaves are 3 inches or 4 inches long, dark green, leathery, and the edges are furnished with spines. The flowers, borne as a rule in late summer and early autumn, are individually not unlike those of *Berberis dulcis* or *buxifolia*, but they are borne in small clusters and hang suspended by very long stalks. Instead of being yellow, they are of a bright coral-red tint, which is very little represented among shrubs in bloom. It is a native of Chili, and, in common with most plants from that region, a fairly humid atmosphere suits it best.

EUCRYPHIA PINNATIFOLIA. — Also a native of Chili, and requiring the same conditions as are recommended in the case of the *Berberidopsis*. The usual habit of the *Eucryphia* is to form a rather upright, freely-branched specimen, which in its native country is said to reach a height of

10 feet to 15 feet, a stature that some specimens in England must almost, if not quite, have attained. The pure white flowers are, except in colour, suggestive of a *Hypericum*, having the same prominent cluster of stamens. They are about 3 inches in diameter, and produced from the axils of the upper parts of the shoots. The pinnate leaves are deep green. A moist yet well-drained soil, with a fair proportion of peat and sand, suits this *Eucryphia* best. It was first introduced about a quarter of a century ago, and is still far from a common shrub in gardens.

TAMARIX ODESSANA. — There is a good deal of confusion regarding the nomenclature of the different forms of *Tamarisk*,

THE FLOWER GARDEN.

NOTES FROM THE OLD PARSONAGE GARDEN.

SOME NEW PLANTS.

IN THE GARDEN of the 5th ult. I noted *Adenophora Potanini* mentioned as a plant for a rock garden with loose spikes of flowers some 18 inches in height. Either your correspondent is not fortunate in his soil or I am perhaps unfortunate in growing Brobdignian varieties, for here we have border plants 4 feet 10 inches in height and from 2 feet to 3 feet in diameter; but much can be done by selecting seed. My variety is a rich sky blue, extremely free, and not the watery mauve of the original. There is a white variety, but so far the seed supplied me has not come true.

Cnicus conspicuus (the crimson Mexican Thistle). — I have mentioned this splendid biennial before in your columns. Two years since I flowered it very finely, and it ripened seed. Now I have a good stock, and instead of all crimson the colours have sported in the most interesting manner, some orange, and others pure mandarin yellow. I am at a loss to understand this, as although we grow many of the choicer varieties of Thistle, we have nothing that could give a yellow colour.

A new white *Delphinium*. — So far as I know there is no white *Delphinium*, Beauty of Langport and Primrose Dame (Kelway's two varieties) being cream coloured; whilst Albion has a very distinct blue tinge which goes off into a bluish white. In a bed with these three varieties is a strong plant of King of Delphiniums. The seed of a spike of this variety was saved last year, and the seedlings are now flowering, amongst which is an absolutely pure white flower, semi-double, the outer and inner rows of petals being marked with a strong blotch of rich green, giving in its half-opened state an extraordinary resemblance to the spring Snowflake, the whiteness of which it equals. If I am so fortunate as to grow this plant as it ought to be grown, I anticipate that it will be an unique addition to *Delphiniums*,
P. H. MULES.



THE BEAUTIFUL *Buddleia variabilis magnifica*.

(Shown by Messrs. J. Veitch and Sons, Limited, of Chelsea, at the meeting of the Royal Horticultural Society on the 15th ult., and given a first-class certificate.)

some of which are of great beauty. According to the "Kew Hand List" the correct name of this is *T. Pallasii*, but in any case it is one of the best, and has pretty pink flowers.
H. P.

NEW AND RARE PLANTS.

BUDDLEIA VARIABILIS MAGNIFICA.

THIS was shown recently by Messrs. Veitch and Sons, Limited, Chelsea, and excited considerable attention. It is one of the most beautiful shrubs that have been introduced of recent years, and both the firm and the collector, Mr. E. H. Wilson, deserve hearty congratulations. The plant is exceptionally free flowering, willowy in growth, and the spikes are of a deep purple colour, much richer and finer than those of *veitchiana*. It is a shrub for warm walls and nooks.

GLADIOLUS FRENCH FLEET.

THIS is another of Messrs. Kelway and Son's new Gladioli from Langport. It has evidently much of the nanceianus character, but is quite distinct. The flowers are very neat in shape, and the colour is a soft salmon with a marking of velvety maroon on the lower segments. It is a beautiful Gladiolus.

JOTTINGS ABOUT ROSES.

(Continued from page 138.)

MANNERS AND CUSTOMS.

FROM time to time I have made most careful notes on all the older varieties given in my list, but Roses, like individuals, possess so many little idiosyncrasies that it is quite possible some of them have escaped my notice. It will therefore add greatly to the value of these notes if other readers can in any way amplify them, more especially because in the various parts of the country such totally different results are noticeable. The first on my list is

Caroline Testout.—It is not surprising that such a Rose as this created a sensation almost immediately it was distributed. Perfectly hardy, thriving well in towns, not prone to mildew, a splendid grower both as a dwarf or standard—these are all points in its favour. Both as a garden and an exhibitor's Rose it is indispensable. Dislikes the knife, and should be given plenty of room to grow into a large bush, which it quickly does. Flower globular—too globular some think—light salmon-pink, and not particularly fragrant. Leaves large, rough, and deep green in colour. Raised from a cross between the old rose-coloured Tea *Mme. de Tartas* (one of the parents of *Cheshunt Hybrid*) and Lady M. Fitzwilliam.

Gustave Régis.—A grand garden Rose of semi-climbing

habit. It is best grown as a large bush or standard, and also makes a beautiful 3-feet to 5-feet hedge. The buds are long and pointed, at first nankeen yellow, opening into fine, large, semi-double creamy yellow flowers. This

variety seems always in bloom, and is sweetly fragrant. Foliage smooth, not addicted to mildew. Dislikes the knife, and requires little pruning.

Mme. Pernet-Ducher is very similar to the previous variety, but is not so vigorous. Mr. George Paul surprised me the other day by saying that it was not much enquired for nowadays. This seems curious, as it is a delightful bedding variety, and its hardiness is beyond all question. Pointed buds, canary yellow, expanding into semi-double flowers of creamy white. Foliage like that of *G.*

Régis. Requires to be lightly pruned.

Mme. Germaine Trochon.—This is of semi-climbing habit, but makes a 4-feet to 5-feet bush with me, and is not of much use until late summer and autumn, when it is superb, and always one of the last to fade. It is a seedling from H.P. Victor Verdier, crossed with *Levet's* exquisite but tender Tea *Mme. E. Verdier*. However, this variety is tolerably hardy. Wood thorny, leaves thick and shiny, not subject to mildew. Flowers globular, variable in colour, nankeen yellow, at times flushed and edged with rose.

Souvenir de Mme. Eugène Verdier.—There are so many varieties named after various members of the Verdier family that it is very easy to get confused with them. This is an excellent variety of rather short growth, but floriferous and fairly hardy. Buds pointed, flowers of good size, full, carried on upright stems; colour, cream white, shaded with a peculiar tone of yellow at the base of the petals and in the centre. I notice that the raiser describes its colour as *blanc électrique*, which in the English catalogues is translated as electric yellow, which is certainly not what was meant. I can thoroughly commend this Rose for growing under glass, and it possesses the unusual merit of expanding all its flowers together. By the way, *Amateur Teyssier*, which is a seedling from it, has just the same quality and is a better grower. I am never tired of praising this latter, and, although the flowers are not nearly so full, it is quite superior as a garden variety, and as a standard it is superb. *Souvenir de Mme. E. Verdier* was raised from Lady Mary Fitzwilliam × *Mme. Chédane Guinoisseau*, so that it is easy to see from whence it obtained its lovely yellow tinting. The foliage is not very good, but gets mildewed. A fine-weather Rose.

ARTHUR GOODWIN.

The Elms, Kidderminster.

(To be continued.)



GLADIOLUS FRENCH FLEET.

(Shown by Messrs. Kelway and Son of Langport at a meeting of the Royal Horticultural Society on the 15th ult., and given an award of merit.)

GARDENING FOR BEGINNERS.

SIMPLE HINTS.

OWN-ROOT ROSES.—Autumn is an excellent time to insert cuttings of the hardier groups, but the more tender Roses, such as the Tea-scented and Monthlies, root better in summer, though even these may be inserted now. The following is a brief description of the ways generally adopted at this season of the year: Select a plot of ground in the open garden, not under hedges or walls as is so often advised. If the soil is heavy, trench it about 2 feet deep, incorporating at the same time plenty of drift sand or burnt garden refuse. If the soil be light, deep digging will suffice. No manure is required. What is wanted is a fairly retentive soil, yet free from stagnation. The soil being made ready, the next thing is to prepare the cuttings. These should consist of the current season's growth, well ripened, and if possible with a "heel" of the last year's wood. When we say current season's growth, we mean that which was first produced this season. The second growth is quite useless, as it is not ripe. Smooth over the "heel" with a sharp knife. The cuttings may vary in length from 6 inches to 12 inches, but if possible procure them of the latter length, then one may plant them deeper, where they are more removed from outside influences. Do not remove any eyes, as frequently those at the base will throw up growths even when the tops are injured by frost. We prefer first to

Prepare the Soil and plant afterwards, even allowing some days to elapse between, as then the soil settles down. As the making of the cuttings proceeds they may be tied up in bundles and covered over temporarily with soil. Rather than plant the cuttings under unfavourable circumstances, we should prefer to make them now, bury them entirely in some good soil in a protected part of the garden, then plant in March or April. Cuttings planted now have much to contend against, such as winter frosts, which will lift them out of the ground quite 2 inches or 3 inches. This must of necessity leave a space beneath the base of the cutting, and unless they are pushed down again most carefully after frost has disappeared the cutting is ruined. If Bracken Fern or quantities of leaves can be obtained a thick covering of these will, of course, prevent this. When

Planting, mark out beds 3 feet wide and plant in rows 9 inches to 12 inches apart. The cuttings may be about 2 inches apart in the rows. Some dibble them in, but we prefer making a trench the depth of the cuttings, and thus ensure the base of the latter resting on the soil. If an inch or so of good rooting material, such as sand or old cocoanut fibre, be placed at the bottom of this trench, this considerably assists the rooting process. When the cuttings are placed in position, dig the soil up to them, tread very firmly, and then cut down another trench, and so on. It will be seen by this that the cutting is entirely buried, but this is not important unless they are fully 6 inches in the soil.

Cuttings of Tea and China Roses, if made now, should be inserted round the sides of 5-inch pots of sandy soil and placed in a cold frame. They will thus form a callus, and will emit roots if placed on a gentle bottom-heat in spring. As to

Varieties, all the smooth-wooded sorts of Hybrid Perpetual Roses root freely, and, in fact, almost any sort will do so when well-ripened wood is inserted. Soft pithy wood is useless. A few

varieties we have found to succeed well are Victor Verdier, Captain Christy, Pride of Waltham, Charles Lefebvre, John Hopper, Ulrich Brunner, General Jacqueminot, Baroness Rothschild, Jules Margottin, Dr. Andry, François Michelin, Mrs. John Laing, Etienne Levet, Prince C. de Rohan, Crown Prince, La France, Augustine Guinoisseau, Margaret Dickson, Clio, Paul Neyron, Helen Keller, Jeannie Dickson, Mrs. W. J. Grant, Heinrich Schultheis, &c. The

Hardy Ramblers, Rugosa Roses, Lord Penzance's Sweet Briars, most of the species and single Roses also root most readily. The Tea-scented, Hybrid Teas, Chinese, and Polyanthas will all grow freely from cuttings. For autumn insertion, as described, procure the cuttings, if possible, from pot-grown plants, otherwise only insert wood from outside or wall plants that can be obtained thoroughly ripe. There is much to



GYPSOPHILA PANICULATA.

be said for own-root Roses, and several experiments we have made have resulted in plants of surprising vigour on their own roots, whereas those grafted were, in comparison, a failure. Marie van Houtte on its own roots was as beautiful as anything we have had in a large collection of the best of the older and newer Roses this year. It is even now giving an abundance of large, finely-coloured flowers.

Gypsophila paniculata.—I have pleasure in sending you a photograph of my *Gypsophila paniculata*. It has grown to a remarkable size. This plant was grown from seed and is eight years old. Our soil is limestone, which accounts for its growing so well. I have four plants and all are equally fine. They are covered when cut down in late autumn with fine cold cinders. This keeps slugs from eating the young growths, of which they are very fond. The new variety, fl.-pl., promises to be a great success in my garden also.—E. A. WATT, Navan, County Meath.

How to Deal with Garden Rubbish.—In the country the rubbish from the garden can be smothered and converted into excellent material for top-dressing fruit trees, for covering seeds, or for other purposes; but in town gardens the smoke might become a nuisance, and some other means must be adopted. Very often in small suburban gardens a hole is dug in some outlying part of the garden surrounded by a hedge of fruit trees, where all rubbish is dealt with, being mixed with salt, lime, &c., to hasten decomposition, and deodorised by a sprinkling of soil when necessary. This is, we think, on the whole the best way of treating rubbish. No nuisance is created, and the product is converted into good manure. It is possible, when there is a piece of vacant land at liberty, to trench the rubbish in, but this cannot always be done, and there are things which must be dealt with in a more drastic manner. Potato tops, for instance, when there is any disease present, should be burnt to kill the spores, or dressed with quicklime. Fire, of course, is the best destroyer of fungus spores of all forms.

Violets for Picking in Winter.—These are quite invaluable. Some gardeners are taking cuttings of the side shoots now and inserting them in boxes in a shady spot outside or in frames. During the autumn these cuttings will root, and next spring, in March or April, will be planted on a prepared plot of land 1 foot apart, the surface will be frequently stirred, and, if dry, a mulch of manure spread among the plants. In extreme cases they should be watered, so as to encourage growth and check red spider.

Violets in Frames.—By September the plants will be sturdy and have well-developed crowns, and may be moved with balls of soil and planted in frames from which early Melons or Cucumbers have been cleared, first painting or lime-washing the inside of the frames to clear out insects. Some of the plants may be potted in 6-inch pots. We have known them to do very well in Tomato houses, planted in the borders after the Tomatoes. The houses were light span-roofed structures, well ventilated.

Violets in Winter Outside.—The best varieties for inside are—Single: Admiral Avellan and Princess of Wales. Double: Marie Louise and Neapolitan. Comte de Brazza is a double white, but it does not flower so freely as the blue or lavender varieties. The above are for growing under glass in winter, but for outside I have never yet found anything superior for general culture than some form of the Russian, and The Czar is about the best. There is also a white Czar, which is good. To have flowers in winter in any quantity there must be annual transplanting, either from cuttings in the autumn or division in March. In September special beds can be made up on south borders for early winter picking, and west borders for later work. I have had the flowers very early and freely planted in a border on the south side of a Yew hedge. Plant in good land, and keep free from red spider.—H.

Arum Lilies.—For winter flowering many gardeners keep the early batch in pots, repotting early in August if they require it; but unless the roots are to be divided they will, with liberal feeding, go two years without repotting. The later batch for Easter may be planted out in trenches in May or early in June, after division has taken place, lifting again and placing in suitable sized pots in September early in the month, and keep in cool pits till cold weather,

then move to a greenhouse. They require rich feeding and good soil.

Arum Lilies in Pond.—It may not be generally known that the white-flowered Ethiopian Lily, better known as Arum Lily, is perfectly hardy in a pond where the water is deep enough to prevent the frost reaching the roots. I have had them planted along the edge of a pond where the water did not vary much in depth, the average being about 18 inches near the side where the Lilies were planted. Large old plants were turned out of 8-inch pots and dropped into the mud of the pond, and kept in position by large pieces of sandstone. They flower freely during summer.

Hardy Ferns.—There can be no garden, no matter how small, where space cannot be found for a few hardy Ferns. These plants will grow where nothing else will, and they have often transformed a bare and ugly spot into a charming bit of garden. Some of the dwarf Alpine Ferns, as the Forked Spleenwort (*Asplenium septentrionale*), Wall Rue (*A. Ruta-muraria*), the Black Spleenwort (*A. Trichomanes*), the Green Spleenwort (*A. viride*), grow well among dry rocks and in walls, and many of the stronger-growing sorts may be planted in the soil.

Anemone and Lobelia.—There are few more delightful combinations in the garden at this time of year than a commingling of the white Japanese Anemone and the bright scarlet Lobelia cardinalis Queen Victoria. I have a small border planted with these two things, and at the present time they are very beautiful. The tall, bronze-foliaged stems of Lobelia, bearing aloft their rich scarlet flowers, contrast vividly with the pure white blossoms of the Anemone, and a charming picture results. Both are good garden plants, and each lasts in beauty for some considerable time. Moreover, they both thrive well in the shade.—T.

Room Plants.—Use the sponge among these. When the leaves are coated with dust the plants cannot thrive, and all large-leaved plants, such as Palms, Aspidistras, Indianrubber, Aralias, &c., should be sponged often with a little soft soap in the water. Mistakes are often made in watering. No plant should be permitted to stand in water when placed in vases. In such receptacles if the water is left long it gets putrid and the bottom roots die, and the plant soon goes wrong. The only chance then is to remove the sour soil and dead roots and start afresh in sweet, fresh soil. The work of recovery takes up much time, and very often is not worth attempting. The better course with such plants is to take them out of the vases to water them and soak, and when the surplus water has drained away take them back. Besides, it is not only unhealthy for the plant to stand in water, but it contaminates the atmosphere.

Cucumbers in Winter.—To be successful with winter Cucumbers there must be a general bottom-heat of 75° to 80°, with an atmospheric warmth at night of 65° to 70°. This means that the house must be well heated, and should not be too large, as a good many Cucumbers may be cut from a house 30 feet or so long and from 10 feet to 12 feet wide, with a narrow bed on each side of a central path. September is a good month to plant, as there will be sun-heat enough to give the plants a sturdy start. There should be no severe forcing or yet overcropping if the plants are to last all through the short days and meet successfully the lengthening days of January. The beginning of the year is generally a critical time with plants which have borne heavily through the winter, and it is as well to have a few young plants coming on to take the place of any plant likely to fail. It is important that the house should have a good cleansing after every crop. Where possible burn a little sulphur

in the house, or the house may be washed, or the glass and walls, with an insecticide. Start clean and sweet, and plant in sweet, open soil, not too light, and the plants with ordinary care will thrive. Half a bushel of soil in each hole will be enough to start with, but small top-dressings should be given every week. This encourages the surface roots, and tends to keep the atmosphere of the house fresh and sweet. We have said do not have the soil very light, at least half the bulk should be sound turfy loam free from wireworms. Let the plants reach two-thirds of the way up the house before stopping the leaders, and afterwards stop one leaf beyond the fruits. Keep the growth thin, and give air moderately. The market grower seldom ventilates, but he rushes the plants along and takes all he can out of them in as short a time as possible, and then clears out and plants again; but the private gardener cannot do this. He must have a succession, and there must be no break in the supply. If the roots are comfortable and the soil is not too light, Cucumbers from this onwards should not require shading.

Winter Vegetables.—When first planted out many plants, Broccoli, Cauliflowers, and other Brassicas, are weak and spindling. They should be well moulded up when put out. This prevents their swaying about in windy weather, and also serves to protect the stems from frost. This important work ought to be done early, before the plants have had time to fall about in the rows. Winter Spinach is an important winter vegetable, and great pains should be taken in taking care of the seedlings. If the ground is at all dry, well moisten the drills before sowing. It is better to do this than to water after the seed is sown.

GARDENING OF THE WEEK.

FLOWER GARDEN.

RAMBLING AND CLIMBING ROSES having practically finished flowering for the season, it is essential that a general, almost final, pruning should be given them, cutting out old wood with a free hand, relying on basal shoots solely where the wall or whatever they are trained to does not exceed in height what one may reasonably expect the young growths to attain in length in a season; but where walls, pillars, pergolas, or what not are high and lofty, retain a few two and three year old shoots, cutting them back at irregular levels to a strong bud, thus encouraging the production of strong-flowering growths part way up, and which will eventually reach the summit. These, together with shoots from the base, will clothe the whole from bottom to top. I would emphasise the necessity of pruning at the present time, for it not only relieves one of having it to do in the busy spring time, but greatly assists in the ripening of the current year's growth by allowing free play for sunshine, light, and air amongst them, and thus to a certain extent ensuring perfect and plentiful bloom. Do not shorten strong shoots until the spring.

TEAS, HYBRID TEAS, and others of more perpetual-flowering tendencies should not suffer from dryness at the roots, but be kept moist, giving them a little bone-meal occasionally as a change from farmyard liquid. Mildew and other fungoid pests must be kept down by applying sulphur, &c.

PERENNIAL PHLOXES are now out, or nearly out, of bloom. Cut down the flowering stems to admit more air and space to any later-flowering plants that may be interspersed among them, and insert cuttings of the young growths springing from the root-stocks. If put in a cold frame and kept fairly close and shaded for a short time, these will quickly emit roots, and with proper subsequent treatment will make useful material for next year. A good number of these Phloxes should be planted, as they fill a gap in beds and borders between the general spring and autumn-flowering plants, a void no class of plant fills better, and if suggestions given in earlier calendars have been acted upon as to planting later-flowering subjects, such as Gladioli, Lilliums, Galtonia candicans, early Chrysanthemums, &c., no bare unsightly vacant spaces will occur, but a bright autumnal display will be continued. General propagating of most soft-wooded

BEDDING PLANTS must now receive prompt attention. At this season most of them will root better in cold frames than in heated structures. Kept fairly closely shaded, and slightly dewed over occasionally to keep the sappy cuttings from flagging, they will strike freely. When rooted air must be admitted on all favourable occasions to harden and prepare them for wintering safely.

Maintain perfect order throughout by keeping walks clean and firm, mowing and rolling lawns frequently, edging all paths, beds, and borders, tying up all plants to their supports, picking off daily withering blooms and decaying leaves, trimming and pegging down any plants which require it, and tolerate no weeds anywhere.

JOHN ROBERTS.
The Gardens, Tan-y-bwlch, North Wales.

INDOOR GARDEN.

CHRYSANTHEMUMS.—The pots being well filled with roots, it is necessary to feed the plants regularly with liquid manure. During wet weather a little artificial manure can be sprinkled on the top of the pots. The foliage of the large bush plants is often so thick that very little rain reaches the pots during the heaviest shower. These then must be looked over to see if they require water whether the weather is wet or fine. House the early-flowering varieties as soon as the buds commence to burst.

SCHIZANTHUS.—These are most useful plants for the cool greenhouse, more especially in spring. A sowing should be made some time during September. Use light sandy soil and sow thinly in shallow boxes or pans. Place in a cool pit, covering with a sheet of glass till germination commences. *S. pinnatus* can be had in many shades of blue and lilac, and there is a white variety. *S. retusus* has red flowers; there is also a white variety of this. *S. wisetonensis* is a great favourite. My experience is that the seeds do not germinate very freely; propagation by cuttings is the more general method.

EPHORBIA.—With the approach of colder nights *E. pulcherrima* (Poinsettia) and *E. fulgens* (Jacinthe-flora) are liable to lose the bottom leaves in a cold frame. It is advisable to transfer them to a heated pit, keeping them as near the glass as possible, where they will derive full benefit from the sun and mature the growths. Give an occasional dose of liquid manure to the earlier plants. Pot the latest batch, which will be found very useful where short plants for furnishing are required.

FERNS.—Plenty of spores from the common varieties are usually to be found germinating in the houses. It will not, therefore, be necessary to collect spores of these. A frond or two of the varieties which cannot be obtained in this way may be cut and placed in bags to dry. Select fronds on which the sporangia are about to burst. This allows the fronds to be placed under a tap of water to wash off all foreign spores that are sure to be found on them if a varied collection is grown. Take care to dry the fronds carefully afterwards.

GENERAL REMARKS.—A few cuttings of *Hydrangea hortensis* and varieties can still be inserted. Gradually harden off when rooted, then place in a cool house, as the object is to obtain well-rooted plants, and not growth. Little, if any, water will be necessary when the leaves turn yellow. The earlier herbaceous *Calceolarias* are ready for potting in 3½-inch pots from the shallow boxes in which they were pricked off. When potting the larger bulbs for forcing do not make the soil in the bottom of the pots too firm, or the roots will be unable to penetrate the soil, thus forcing the bulbs to rise out of the pots. Empty the water out of the hot-water pipes once a year. Always fill with soft water if it can be obtained, as it does not corrode so much as hard. Have the chimneys and flues swept.

Royal Botanic Gardens, Kew.

A. OSBORN.

ORCHIDS.

REPOTTING MASDEVALLIAS.—Any time during the month of September is suitable for repotting or resurfacing the *Masdevallias*, or, if more convenient to the cultivator, they may be left until February. My practice has been to overhaul the plants thoroughly at this season. In the first place, they make the greatest number of roots during the next two months, and during the autumn the external air is generally so cool and moist that with little trouble a very suitable atmosphere can be maintained, which is always so favourable towards the speedy re-establishment of the plants; also that the new leaves now pushing up will soon produce young roots, which, having new compost to ramble in, quickly find their way to the inside of the pot, and are firmly settled before winter begins. Previous to repotting it is advisable to allow the plants to become fairly dry, for the drier the roots are the less liable are they to be injured. It is also important that every plant should be thoroughly sponged and all the short pieces of dead flower-stems removed before the operation commences. *Masdevallias* are usually vigorous-rooting plants, and require proportionate space for their development. The pots should be filled to two-thirds of their depth with drainage material, either broken crocks or well-dried Fern rhizome. As regards a suitable compost, I may here mention that I have thoroughly experimented with the leaf-soil preparation for these plants, and I have found that the roots, instead of penetrating deep down into the soil, for the most part establish themselves in the sphagnum moss on the surface, the result being that plenty of healthy leaves were produced, but the roots were small and comparatively few to those grown in peat and moss. The plants generally did not bring forth the number of flowers they should do, and those that did come were small and deficient in colour. Our plants this season are being repotted in a compost consisting of fibrous peat and sphagnum moss in equal proportions, with a handful of small crocks and a little coarse silver sand well mixed with it.

In repotting keep the base of the plant on a level with or just below the rim of the pot. Carefully work the compost in among the roots, and in so doing insert a few thick pieces of crock. Pot moderately firm, but not so hard as will prevent water from passing rapidly through the whole

mass. Large healthy specimens that do not require repotting may have the old compost picked out and fresh material substituted. Any old over-grown plants that may have become bare in the centre should be broken up and potted separately, or they may be remade up into neat, compact specimens. The critical time with *Masdevallias* is after the disturbance of the roots, as then it is an easy matter to over water them. For a few weeks water very sparingly. Every morning each plant should be carefully examined, and if the surface of the compost appears to be in the least dry, it should be lightly damped over with a fine sprayer. This will induce the new roots to come to the sides of the pot, and as each plant becomes re-established gradually increase the supply. The above cultural remarks apply principally to the strong-growing sorts, such as *M. ignea*, *M. Veitchii*, *M. macrura*, *M. coccinea*, and the numerous varieties of the *harryana* type. There are numerous other species and hybrids which might be included, but they are far too many to mention here. The dwarf tufted kinds, as *M. muscosa*, *M. xipheres*, *M. wagneriana*, *M. Estradei*, *M. caudata* (*Shuttleworthii*), *M. Arminii*, *M. hieroglyphica*, *M. ionocharis*, *M. floribunda*, *M. picturata*, &c., succeed in small pans, which should be suspended well up to the roof glass, or if more convenient may be arranged upon a stage, which should be raised well above the foliage of the stronger growing kinds. Keep the immediate surroundings of these *Masdevallias* fairly moist until cold nights come, when it should be gradually discontinued, only damping down occasionally to prevent extreme dryness of the atmosphere. The winter-flowering *M. tovarensis* should not be repotted now unless the compost is in a bad and sour condition.

Burford Gardens, Dorking.

W. H. WHITE.

FRUIT GARDEN.

TOMATOES.—A house should be in readiness to receive the plants which are to supply fruits during the latter part of the year. Should the weather become cold and wet, they should be placed indoors without delay. Each plant will have set three or four trusses of fruits, and a surface dressing of some rich material should be given to assist the fruits to mature perfectly. An occasional sprinkling of *Le Fruitier* will also be of benefit. Keep the house at about 60°, and encourage a free circulation of air during favourable weather. Stop the plants when sufficient fruits are set to form a crop, and remove all side growths. Watering must be done with more judgment now than hitherto. The winter fruiters must be encouraged to make sturdy growth by keeping them near the glass, with a free circulation of air when the weather will permit. Pot them into their fruiting pots as soon as they are ready, so that the roots may enter the new soil before the dull late autumn weather sets in. Should the white fly appear, fumigate the plants two or three times in succession with *XL* *AL*.

STRAWBERRIES IN POTS.—The earliest potted plants have made plenty of roots, so that it will be advisable to assist them to build up strong crowns by giving them occasional waterings with diluted liquid manure and soot water. If they have become crowded give them more room. Mildew has been very prevalent this season, but it has been checked by syringing with the solution advised in a former calendar. Endeavour to keep the plant to one crown, and remove runners and weeds.

NEWLY-PLANTED TREES.—It is advisable to examine young trees, both on walls and in the open to see if their stakes and ties are safe. A good deal of irreparable damage is often done to Peaches, Apricots, and Plums through neglect of this matter. The young wood will swell yet to a considerable extent, and if the ties or shreds are too tight there is danger of gumming through the wood being rubbed by contact with wires or nails. The training of young trees still demands attention. Any growths which need tying should be done at once, so that they will be safe should rough weather set in. Standard trees in the open must be secured to their stakes, and the leading growths of pyramids secured safely and straight. Take advantage of favourable opportunities to water old trees which have borne a full crop with diluted farmyard drainings, of which there is usually a plentiful supply at this season.

OUTDOOR VINES.—Outdoor Grapes are now showing signs of ripening. To ripen them perfectly the conditions need to be very favourable indeed. Regularly remove all sublaterals and tie the bunches into the most favourable positions, where they can obtain the full amount of warmth and air. Mildew must be kept in check by dusting the affected parts with sulphur. This is easily washed off with clear rain-water when the bunches are ripe. Cover the Vines with netting to keep off birds and wasps.

E. HARRISS.
Fruit Department, Royal Gardens, Windsor.

ROSE GARDEN.

POT ROSES.—The present is a most suitable time to lay in a stock of these for winter blooming, and from what we have seen the plants are very strong and healthy this year. Gardeners have not always the convenience to produce plants of the same quality as the nurseryman, and it pays better to purchase plants than to attempt the rearing one's self. From late October and during November and December, Roses are of much value, and although they are plentiful outside when the autumn is mild, the flowers are wanting in brightness owing to the marring effect of rain and fogs. The purchased plants are now in the right condition to go on growing in a gentle heat; indeed, it is best to start the plants almost as received, excepting that it would be best to remove the top twiggy shoots and cut back the next growth to a good plump eye. Gardeners frequently make a mistake in pruning these pot Roses

hard the first year. Tie them out as much as space will allow, but cut away very little of the growth. Soon after starting the dormant basal eyes will begin to swell, and will eventually throw up growths which will yield some beautiful bloom. Weak liquid manure is helpful when flower-buds are seen, but do not try to obtain the blooms too large at first; not until the plants' roots have become matured. By maintaining a steady, even temperature these plants may be kept growing all the winter, and one will never be without a supply of buds and blossom. A pinch now and then of some good fertiliser will help the bloom considerably, but on no account let this be done to a great extent or there will be a lot of paralysed plants to deal with in the future. We have seen pot Roses killed outright by over doses of artificial manures, and we would rather rely upon animal manures given in weak doses.

REPOTTING would not be necessary until next May or June, and even then it will not be wise to give a large shift. Pots full of roots and liberal doses of liquid manure are the secrets of growing the Tea and Hybrid Teas to perfection. The grower of pot Roses until quite recently had always the terror of mildew before his eyes, but now, thanks to the sulphur vapouriser, there need be no trouble on that score. All the leading Rose growers are using the vapourisers, so that plants should be perfectly free from mildew when received.

OWN-ROOT ROSES grown in pots may be planted out now since we had a good ground rain. They will quickly lay hold of the soil and give a good account of themselves next summer. If Teas and Hybrid Teas, they should be earthed up at the end of November in order to protect from severe frosts. Keep all flower-buds pinched off this season.

PLANS for future plantations should be considered without delay, and the order despatched to the nurseryman. One cannot expect to obtain good plants of the choicest Roses when ordering is deferred until the season is well advanced.

ROSE CUTTINGS, also *Manetti* and *Briar* cuttings, should be made during the next week or two. Where possible, secure a heel to the cutting of the Roses, and put in well-ripened wood of the early summer's growth. All the *Rambler* and *wichuriana* Roses propagate freely from cuttings, and many of the Hybrid Perpetuals. Tea-scented, Hybrid Teas, Chinese, and similar groups should be put into pots, and the pots placed in a cold frame. When callused over they may be induced to root by plunging into bottom-heat, afterwards potting up into 3-inch pots. P.

KITCHEN GARDEN.

SALAD.—There is no difficulty in having abundant supplies of salads all through the summer months, but as the days shorten the growth diminishes, and, unfortunately, the demand does not correspondingly decrease, therefore a considerable amount of forethought is required in sowing and planting in order that plentiful supplies may be gathered when they are wanted. Lettuce is one of the chief essentials for the salad bowl, and no time should now be lost in making good plantations from seed rows or beds that were sown some time ago on a plot of ground that is both in good condition and well sheltered. Another good sowing of some of the hardier varieties, such as *Bath Cos*, may be made on a good south border. If the ground has been cropped all this season naturally it cannot be very rich, and will be greatly benefited by the addition of some good decayed manure well dug into the soil. Before sowing the seed let the soil be made firm and fine in order to assist germination. A good dusting of soot or lime, applied as soon as the young seedlings appear above the ground, will act as a stimulant and provide a check to slugs and snails. Young Lettuces planted some time ago are growing fast, and so are the weeds amongst them if allowed to remain. Chickweed is one of the worst at this season, and must be carefully searched for and removed when young, otherwise it will rob the soil. Regularly ply the Dutch hoe between the rows of young Lettuces, *Endive* plants, *Radishes*, &c., when the ground will permit. *Endive* that is wanted in a short time may now be blanched by covering the plants with flower-pots which have the drain-holes closed, the pots to be selected according to the size of the *Endive* plants. A sharp eye must be kept on the plants for slugs after they are covered, as they prey on the best parts. Lime or soot sprinkled round the pots helps to keep slugs at bay.

MUSTARD AND CRESS.—Sowings of this excellent salad now require warmer quarters to ensure good growth. Like numerous other subjects, it is best when grown quickly, and this can be accomplished in a very short space of time if the seed is sown thickly and evenly on shallow boxes filled to within a quarter of an inch of the top with fine fresh soil taken from some part of the garden that is free from weeds. Wood ashes (where procurable) and sand in equal parts constitute an excellent compost in which to grow Mustard and Cress.

MUSHROOMS.—Fresh horse-droppings should now be collected in quantity, according to the size of the Mushroom bed to be formed. Small quantities gathered at intervals of some days are not so satisfactory as one large gathering. Let the droppings be turned over daily for some days, then every alternate day when the strongest heat is past will suffice. When the material is being turned make sure that the outside droppings are placed in the middle of the heap, so that all the manure may be fermented before the bed is made. Horse-droppings gathered from horses that are not too hard fed is much improved by being mixed at the rate of nearly one barrow-load of good chopped turf to four of manure.

J. JEFFREY.

The Gardens, St. Mary's Isle, Kirkcudbright.

NURSERY GARDENS.

MESSRS. JAMES CARTER AND CO.

A VISIT to the extensive seed trial grounds of a famous house is always interesting. The thought uppermost in the mind of the visitor will be as to the long-continued experiments—laborious and costly—to bring the particular flower or vegetable to the perfection displayed. Then the work of reselecting old varieties is a never-ending one, looking to the high standard of excellence and purity which such firms as the one under notice successfully endeavour to attain. As is well known, the Holborn firm have for a long series of years been in the very front rank of those who have done such splendid work in improving the garden Pea. My memory goes back to some thirty-four years ago when such sorts as *Telephone*, *Stratagem*, and *Anticipation* were put into commerce by Carter's and hall-marked by the Royal Horticultural Society's first-class certificates. These early endeavours to create an advance in the cropping and eating qualities of Peas are still maintained—to wit in *Daisy*—and we have a very practical illustration of it in that new variety (not yet sent out) named *Quite Content*. I saw it well represented at *Mortlake*, row after row of it, a very productive sort, fine—ten to twelve—large Peas in 5-inch to 6-inch pods, an excellent addition to the main crop section. The extremely hot summer has been somewhat trying to *Pea* cultivation, but even taking this into account this new aspirant to *Pea* fame (which its public examination this season has already secured) was seen in capital condition. As showing the extent of the *Pea* trials this season, it is of interest to put on record the fact that they comprised 1,351 rows.

Brief reference may be made to other good sorts in commerce. Carter's *Eight Weeks*, the earliest *Pea* grown here, is a very hardy *Marrowfat*, growing 15 inches high, and possessing all the good points of the best type of *American Wonder*, which was one of its parents. Gardeners who require a good forcing and early border variety will find this—no doubt they have already found it—to be a real acquisition. Another first-rate early raised by the firm is that named *Early Morn*, maintaining its position as one of the best early *Marrowfat* Peas ever raised. Here is an important little cultural hint as to this variety. Although so early the seed should not be sown until the soil is in a fit state to receive it early in April, as it is a rapid grower. The pods are very large and well filled, and are often fit to pick in the early weeks of June. Its height is about 3 feet. Another good early *Marrowfat* is Carter's *Daylight*, as early as the one raised by the firm and called *Lightning*, a re-selected stock of the earliest white round-seeded *Pea*. To those in search of a new (only put into commerce this year) large-podded *Marrowfat* *Pea* for show purposes, must be mentioned Carter's *Exhibition*, a maincrop variety, 5 feet in height, seed large, green, and wrinkled, a magnificent *Pea*, the result of a selection from Carter's *Model Telephone*. It possesses all the good points of that very fine variety, but bears even a larger and richer coloured pod, a good point in an exhibition *Pea*. As a fine late variety the *Gladstone* is well worthy of note, bearing long sickle-shaped pods, dark in colour, and very prolific, height 3½ feet. And so one might go on alluding to still further triumphs among Peas.

One noticed a very fine breadth of a new mammoth exhibition *Runner Bean* sent out by the firm this year, bearing pods 12 inches to 15 inches in length, as smooth and tender as a *French Bean*. It was raised by Mr. Lye of *Sydmonton Court Gardens*, *Newbury*, a man who has achieved truly remarkable success as a vegetable grower and raiser of good things in this important branch of gardening.

If the recent tropical weather has not been the most favourable that could be wished for, by reason of the dry summer, for the Peas, it has been exactly what was wanted for outdoor Tomatoes. A new variety called Carter's Sunrise I noted as doing extremely well. Its chief points are earliness, a prolific character, medium-sized, globular fruits, their rich scarlet colour, and high flavour. The fruits, which are very freely produced, are sometimes seen with four clusters on a plant bearing sixteen fruits, all of one even form. A capital variety, too, for this style of culture is that named Carter's Outdoor. It has been found to be the best for culture in the open air, and a long way ahead of others. This variety readily fruits under the warmth of a south wall, or along the front of a greenhouse where the full influence of the sun is felt, and away from cold winds. In shape the fruit is not so round as the firm's Duke of York or New Sunrise, but it is earlier in ripening than either. In the Tomato way one was reminded of a famous old variety, but still one of the best, Blenheim Orange, a curious cross between the red and yellow flavour, and luscious and juicy.

In the vicinity of the flower and vegetable trials one came across quite a novel and deeply interesting grassy scene. It might be called a series of miniature lawns in the shape of a huge cart-wheel, in some twenty sections. In this novel cart-wheel experiment with lawn grass seeds, for which the firm is deservedly famous, we have a fine object-lesson as to the best lawn grass to sow.

What a wealth of floral beauty we now have in our hardy annuals, and as seen here, in masses, they show their remarkable adaptability for the continuous embellishment of the flower garden. Carter's Golden Dwarf Nasturtium (a beautiful form of the first dwarf variety which originated in the firm's Essex seed farms) has bright yellow flowers, foliage of a rich golden hue, a very compact plant, altogether a very effective variety. These make the most beautiful bedding and border plants, and if the seed be sown at intervals from March to June the display of bloom will last until cut down by frost, a very important point to the lovers of perpetual floral beauty. One came across a very old favourite (still, though, holding its own) in Empress of India. I recollect well its obtaining first-class certificate honours from the Royal Horticultural Society many years ago. The plant has an attraction apart from its

intense crimson-scarlet flowers, by reason of its dark bluish green foliage. Scarlet King is well named. It has brilliant scarlet flowers, well thrown up from the fine dark foliage. Amongst the climbing Nasturtiums, Vesuvius is very distinct and effective, rich dark foliage, with salmon rose flowers.

One of the showiest of all annuals is the Godetia, and here we have a veritable mine of floral wealth in which to work amongst. Perhaps the finest one ever raised is Lady Satin Rose, colour a dark satin rose, height about 1½ feet. Amateurs and gardeners may be reminded that the Godetia is highly serviceable in many ways as an excellent cut flower. There is such a refinement, too, about such flowers as we saw here. For open air work how beautiful are the summer-flowering Stocks, and then their delicious scent! Carter's Branching Ten-week produces a profusion of double flowers; height of plant 1½ feet. The firm's Avalanche White Winter Stock is, probably, the finest white Stock in cultivation.

A final note may well be found in recording that the glorious summer weather has just suited the firm's fine strain of Petunias and the sun-loving Eschscholtzias, of which there were several glowing patches, including a new colour, which will probably be put on the market next season.

VISITOR.

THE FRUIT GARDEN.

PLUM EARLY TRANSPARENT GAGE.

AMONG Plums suitable for pot culture Early Transparent Gage (also known as Early Apricot) is one of the best. It is also an excellent Plum for culture out of doors. In Mr. Leopold de Rothschild's garden at Gunnersbury House, Acton, Plum trees in pots are well grown by Mr. Hudson, and this variety is considered one of the most useful. It is of canary yellow colour, shading to primrose yellow, marked with brown spots. The flavour is very rich and sweet, the flesh primrose yellow, firm, and juicy. The variety is a very free bearer. It received a first-class certificate from the Royal Horticultural

Society in 1893. Other good Plums for pot culture are Reine Claude du Comte Hathem Jefferson, and Kirke's.

GOOD AUTUMN RASPBERRIES.

THE two best late Raspberries we have are the yellow Four Seasons and the Belle de Fontenay, a purple-red fruit of great excellence. I think if only one late Raspberry is grown, the last named, the red, should have the preference, as this is most useful for cooking, and in all gardens of any size the late or autumn fruits should find a place. Few fruits are more valuable when the other summer sorts are over, and in addition to their usefulness, they are so easily grown if given ample room. A supply is forthcoming until severe frosts occur, indeed, in a favourable autumn we have had the Belle de Fontenay till late in October. With regard to the yellow Four Seasons, this fruit is sweeter than the red. It is a great bearer. There is a red Four Seasons, but not equal to the white, though prolific, the best red being the one noted above, both for flavour, size of fruit, and for crop. Of course, the autumn fruiterers require different culture. Cut the canes down to the ground in February, and select the best summer growths. Remove the others, the best results being secured where the canes are spread out so that the fruits can ripen freely.

G. W.

YELLOW RASPBERRY THE GUINEA.

OUR best yellow Raspberry is the Guinea, and this variety is all the more valuable on account of its lateness, large fruits, and splendid flavour. I am aware that of late years white or yellow Raspberries have not found so much favour with growers who have room for these fruits as in former years. Why, it is difficult to say, but even for dessert alone the Guinea is well worth room in all private gardens on account of its good quality, size, and appearance. The above new fruit was raised from the red Superlative, one of the best Raspberries grown, and, like the last named, a very free grower. It will succeed where others fail. Last season I saw growths of this variety over 12 feet long, and in this respect it resembles the red variety alluded to, and being a splendid cropper it is most profitable. The fruits are not so sweet as the small and older sorts, are firmer, and do not decay so soon in wet weather. The growth is vigorous. Given ample space, the plants crop longer, and the fruits are finer.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, W.C. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

Legal Points.—We are prepared to answer questions of law which have anything to do with the subject of gardening and forestry. The questions should be as clear and explicit as possible, so that there can be no doubt as to the point of the question. Answers will be found in a separate column headed "Legal Points."

POLYGONUM BALDSCHUANICUM (G. E. S.).—We cannot say what is the cause of the spots, which may be due to sun and rain, i.e., scorching, or it may be a fungus. The leaves were badly crushed by your enclosing them in an ordinary letter.



PLUM EARLY TRANSPARENT GAGE. (Reduced).

If you care to send a fresh supply packed in a wood or tin box, to reach us as early in the week as possible, we will endeavour to give you a more satisfactory answer. The leaves will travel best if packed in moss that is only slightly damp, and better if first enclosed in oiled paper.

LILIES AFTER FLOWERING (*P. G. Nagle*).—It much depends upon the way in which the flowering has been brought about this year whether the bulbs will do any good a second time. For instance, if forced into bloom *L. longiflorum* and its variety *Harrisi* will not have made bulbs of flowering size, and will not be worth the trouble of growing again. You may give them a trial in a warm and sunny spot in the open at the base of a wall or a greenhouse wall. *L. speciosum* is of a different character, and if upon examination—i.e., turning the ball of earth out of the pot for the purpose—strong, vigorous roots, twice the size of whip-cord, are abundant you may, when the plant has done flowering, shake away one half the soil and repot the bulbs early in October in loam, leaf-mould, sand, and a little manure, burying the bulbs $1\frac{1}{2}$ inches deep in the soil. Good drainage is essential, little water until growth begins, and abundance of water when in full growth and up to the time of flowering. If you have been growing the retarded bulbs of *L. speciosum* they will, we fear, prove useless. These remarks apply to those naturally grown from the first.

PECULIAR GROWTH ON WILD ROSES (*H. W. N. D.*). The peculiar growth is known as the Bedeguar Gall. These strange productions are caused by insects of the genus *Rhodites*. The galls will reach to a size of 2 inches in diameter, and the surface is always covered with the long, mossy-like green or red hairs. If you examine one by cutting it in half it will be found to contain numerous cells, each with a distinct wall of its own. In each cell lives a white larva, which in the cell becomes a pupa and emerges as a four-winged fly about $\frac{1}{2}$ inch long. The insect is black with brown legs, and is known as the *Rhodites Rosæ*.

PODOPHYLLUM EMODI AND CHERRY (*G. E. Methuen*).—The established plants of this interesting subject usually fruit each year, and should be grouped in rather a conspicuous position, so that the fruits, which are edible, may be seen, the blossoms, which appear in spring, not being of an attractive character. The leaf effect, however, is good and distinct. It is quite possible your Cherry trees are making too much growth, and that lifting and root-pruning are necessary to bring the trees into a more productive condition. Trees five years planted should now be in a good and fruitful condition, and something may be wrong in the treatment. You say the trees "are well fertilised." What do you infer by this? Trees that are making "splendid wood" and bearing no fruit should not need any fertiliser save that naturally obtained from the soil. It may be, again, that root dryness in summer is the cause, but to say definitely the trees would require inspecting on the spot, unless you can give us any further clue from the points we have raised. If you know an expert gardener in your district, he may favour you with an opinion as to what is best to be done, the nurseryman, for example, from whom you obtained the trees.

KALOSANTHES (*A. D. L.*).—The specimen sent is *Crassula coccinea*, also known as *Kalosanthos coccinea*, a very old and popular plant for the summer embellishment of the greenhouse. Your plant that has got too straggling may be readily cut back to the required extent. No time, however, must be lost in carrying this out; indeed, it would have been better had it been cut back about the middle of July. After cutting back place in a good sunny position in the greenhouse, and give little water, for the *Crassula* is naturally of a succulent character, and an excess of moisture at any time may prove fatal, but more

particularly when there are no leaves to support. New shoots will be produced but slowly, and the roots had better not be disturbed till next March or April, when a good deal of the old soil may be removed and the plant repotted in a mixture of two-thirds loam to one-third leaf-mould, and a good sprinkling of silver sand. It is not at all likely that the plant will need a larger pot than it was in before, but it must be clean and well drained. The tops that have been cut off make good cuttings, and are not at all difficult to root. About 4 inches is a very suitable length for them, and a few of the bottom leaves having been removed, they are then ready for insertion. The cuttings may be either put singly into small pots, or six or eight can be inserted in a pot 5 inches in diameter. A good place for the cuttings is on a sunny shelf in the greenhouse, and there is little trouble in inducing them to root, providing that they are not over-watered. By March they may be potted singly, and as soon as growth recommences the centre of the shoot should be pinched out, in order to induce a bushy habit of growth. These cuttings cannot, however, be depended upon to flower next year, but they will make handsome plants for the following season.

ROSE FOLIAGE BLIGHTED (*Mrs. A.*).—The black sooty-like deposit upon the foliage of your Roses is caused by aphid or green fly. Good syringing with cold water would remove some of it, but if you have only a few plants it would be well to set someone to sponge over the leaves; then give a good syringing. The syringe should be freely used among Roses, commencing early in May. If this were done, there would be less trouble with aphid and the plants would benefit considerably. The black and brown spots are caused by a fungus called black spot. It is very prevalent this year, and there seems to be no real cure for it. The best preventive is Bordeaux mixture, applied early in the season as soon as shoots break, and continue at intervals. The mixture is best applied with a very fine syringe, and the recipe is as follows: Dissolve 10oz. of sulphate of copper in a little boiling water, and add five gallons of water; slake 6oz. of lime in some water. When it is cool pour it into the solution of copper, and stir all well together. There is no cause for alarm at this black spot, as our Roses are rarely free from it more or less, but it is not nice to see, and a preventive is easily applied, although a cure, when once the fungus has gained a strong footing, is not easy.

TREATMENT OF PINE-APPLE (*E. C.*).—By potting the crown of the Pine-apple you apparently unwittingly adopted one of the several means usually followed of propagating this fruit. You do not give the size of the pot the plant is now in, but as the "top was very fine and fresh" when the plant was potted it may be concluded that one of 6 inches in diameter was employed. If this is the case you may safely, according to the description of the condition of the plant, shift it at once into its fruiting pot of 11 inches in diameter, but provided it is in a smaller-sized pot, say 4½ inches, it would be best to first place it in one of 7 inches, and once it has well filled the soil with roots again shift it into an 11-inch or 12-inch pot. In potting a compost of light, fibrous, moderately dry loam, enriched with a liberal dash of bone-meal or some other similar manurial compound, with some soot added, should be used. This should be made thoroughly firm in well-drained pots, which should be subsequently plunged into a bottom-heat of from 80° to 85°. The atmospheric conditions of the Cucumber house in which the plant is said to be placed admirably suits the wants of the Pine-apple; in fact, some of the best Queens that we have seen were grown at the end of a house of this kind. As good fruits may be produced from crowns as from suckers, which are invariably made use of, but crowns usually take longer to fruit than suckers do. Pine-apples require careful management with respect to watering after being newly

potted. A very moderate supply suffices to meet their requirement until free root action takes place.

AMPELOPSIS VEITCHI (*W. M. J. R.*).—There is a natural tendency in the case of the *Ampelopsis* to mount upward at the expense of the lower portion, and if it is shaded there by neighbouring plants this tendency is, of course, increased. When an *Ampelopsis* is planted with the object of clothing a wall from base to summit, the shoots should first of all be trained along the bottom in order to ensure the clothing of that part. Now if you wish to hide the bare portion of wall this can be readily done by planting half-a-dozen or so of small plants at intervals along the vacant space, and they will soon mount up and gradually reach the lowermost shoots of the older plant. Such plants can be readily obtained from nurseries, where they are usually kept in pots for the convenience of carriage, as the *Ampelopsis* once established does not transplant readily.

PLANTING LARCH (*G. B.*).—There is no necessity for you to use manure at all for Larch; in fact, the trees will grow better without it. The use of manure may cause them to grow faster, but the wood will be softer and more liable to be damaged by spring frosts, insect pests, or the dreaded Larch disease. After the land has been ploughed it could have a dressing of soot harrowed in with advantage, as this is of benefit in checking insect life in the soil, and also acts as a food for the plants without being forcing in any way. The main point, however, is to break the ground deeply, but use no farm-yard or artificial manures whatever, as these will not only be wasted but be injurious to the young Larch, either directly or indirectly. Soot is a plant food the value of which is not properly understood, and, as we have said above, a dressing of it will be of service. Beyond that we can recommend no manure as likely to be of use to you.

EVERGREEN HEDGES (*Subscriber*).—We can recommend *Cupressus macrocarpa*, *C. lawsoniana*, *C. nootkatensis* (*Thujopsis borealis*), *Thuja Lobbi*, and *T. occidentalis* as fast-growing and cheap conifers suitable for forming a tall hedge such as you require. The hedges you have seen must have been much neglected, as these plants form splendid hedges if kept clipped annually, but if they are once allowed to grow out of bounds they will not refurnish themselves so well with foliage when cut back as a Yew or Holly will. *C. macrocarpa* will certainly form a good hedge, but it must not be in a very windy place. It grows well, however, by the seaside, often thriving where some of the other *Cupressus* are injured by too close proximity to the sea. For hedge purposes we should put *C. macrocarpa* and *T. occidentalis* last in the above list, the other three being about equal. If any of these plants are growing well in your neighbourhood, you could use them for a hedge without any fear of the result. In planting do not crowd the plants, but they should be close enough to touch each other. The advice given in "Trees and Shrubs for English Gardens," re planting and clipping these conifer hedges, should be closely followed.

PRUNING RAMBLER ROSES AFTER FLOWERING (*E. B. G.*).—If the plants are more than three years old there will doubtless be several old growths. Remove some of these as soon as the bloom has fallen, right down to the ground, selecting the oldest. You will then have left the new shoots made this year, and some of last year's growths, from which some of the new shoots spring. The lateral growths upon the two year old shoots we do not advise being pruned until next March, when it is best to cut them back to three or four eyes. If you can open out the plants somewhat so as to admit light and air you will find them succeed much better. Some growers make it a practice to remove all old wood every

summer, retaining merely the new shoots, but this is hardly necessary unless one has to deal with very old plants which produce abundance of new shoots annually. Weeping Roses may be treated somewhat upon the same plan. If new shoots are encouraged a much finer effect is produced, and the trusses of blossom are larger from the young ripened wood. As a rule these weeping Roses produce a number of new shoots from the crown of the head. These must be encouraged and retained full length, so that if an old growth seems in the way it is usual to cut it back immediately after flowering; but where it can be conveniently retained then you should do so and cut back its lateral shoots in spring. Some of the rambler Roses of the Evergreen and Ayrshire section are usually allowed to grow almost at will, and it is only when they become unmanageable that their old shoots are removed, but the multiflora group, to which Crimson Rambler, Electra, &c., belong, the treatment should be as first advocated.

HYDRANGEAS IN POTS (Beginner).—It is now too late for you to do much to your Hydrangeas; in fact, all that can be done is to stand them out of doors in a sunny spot, and feed with some manure water, as by this they will gain in strength, and possibly flower next year. Small plants to produce one head of blossom are propagated from cuttings about the middle of July the previous year. They are selected from the very strongest shoots that have not flowered, are taken off at a length of 4 inches to 5 inches, inserted singly into small pots filled with a light sandy compost, and placed in a frame kept close and shaded till rooted. When this takes place they will soon need repotting, using for the purpose pots 5 inches or 6 inches in diameter, according to the vigour of the plants. A soil made up of two parts loam to one part each of leaf-mould and well-decayed cow manure with a little sand will suit them well. The plants must be wintered in a frame or cool greenhouse, taking care at that time not to over water them, and as soon as they start growing in the spring they should be watered with weak liquid manure once a fortnight, discontinuing it when the blooms show colour. These plants ought to be cut back directly they have done flowering, and if shifted into larger pots as soon as they start into growth they will carry two or three trusses the next season.

CREEPERS ON OLD WALLS (E. H.).—The best thing to do with your creepers and old trees is to thin out some of the growths where they are very crowded. Cut back a few of the strongest near to their bases so as to encourage shoots from the bottom and so clothe the bareness there. If possible, you might cut back the uppermost shoots of the plants; this would tend to encourage young ones from the base. Creepers are always liable to become bare at the bottom if a few of the shoots are not cut down annually. Water and feed them well during the summer and autumn months. You would find that a mulch of farmyard manure would do good to your creepers and encourage vigorous growth. A top-dressing of fresh soil enriched with some artificial manure, such as Clay's, Standen's, Thompson's, or guano would do good. Some of the old surface soil should be removed to make room for it. When a creeper gets crowded and bare at the base, the thing to do is to take out some of the old shoots, and by cutting back a few strong ones try to encourage fresh young growths from the base. Unless you dig the border deeply and well enrich it with manure we fear you will not be able to grow many perennials satisfactorily in the position you mention, for the roots of the large trees will impoverish the border. The herbaceous Pæony likes a certain amount of shade, it is true, but it requires a rich soil. If you take care to supply the latter you would probably succeed fairly well with them. Providing they were not allowed to suffer from want of water, Flag Irises would grow there also. Lilium

pyrenaicum, croceum, and umbellatum and Mar-tagon might be tried, together with the Crown Imperial. Aquilegias would be useful, and there are now many beautiful sorts to be had. They are best treated as biennials. You might try Delphiniums, Anemones, Trollius (Globe Flowers), Dornicum, Day Lilies (Hemerocallis), Dielytra spectabilis, Solomon's Seal, and Monkshood (Aconitum). The shaded positions would, of course, somewhat retard the flowering of these plants.

NAMES OF PLANTS.—*H. S. A. B.*—Golden Rod (*Solidago virgaurea*).—*C. C.*—Henbane (*Hyoscyamus niger*).—*W. Gill.*—1, *Silene armeria*; 2, *Genista sagittalis*; 3, *Adenophora liliifolia*; 4, *Salvia glutinosa*; 5, *Scrophularia alata*; 6, *Coronilla varia*; 7, *Cydonia japonica*.—*H. M. F.*—*Geum urbanum*.—*Cromer.*—*Statice sinuata* var. *alba*.—*F. A. K.*—*Statice sinuata* (mauve); *S. sinuata* *alba* (white); *S. Bonduelli* (yellow).—*A. T. B.*—The Soft Shield Fern (*Aspidium angulare* var. *noliferum*).—*Bid-ston.*—*Saponaria officinalis* fl. pl.—*Yeovilian.*—1, Double form of *Hibiscus syriacus*; 2, *Ceanothus Gloire de Versailles*; 3, *Abelia rupestris*; 4, *Veronica Traversi*; 5, *Acanthus latifolius*; 6, *Escallonia macrantha*; 7, probably a *Cistus*; 8, *Calycanthus floridus*.—*B.*—Without flowers, fruit, or a word of description it is impossible to say positively, but the enclosed specimens most probably are: 1, *Calycanthus floridus*; 2, *Cotoneaster bacillaris*.

SHORT REPLIES.—*Bulb.*—Apply to Messrs. W. J. Bruce and Co., 34, Surrey Street, Strand, London.—*C. B. P.*—Inexpensive Tulips that will doubtless prove serviceable

LEGAL POINTS.

COPYRIGHT IN LETTERS (J. W.).—The writer of a letter retains the copyright, and can prevent the receiver from publishing the letter, except under special circumstances.

GUNS (Max, Chester).—Except in a dwelling house, or the curtilage thereof, a gun cannot be used without a yearly license—cost, 10s. Licenses may be obtained at the post office. Penalty not exceeding £10. Licenses expire on July 31. No license is required by any person in the naval, military, or volunteer service, or in the police force; by any person possessing a game license, by any person carrying a gun belonging to a person having a game license, by the occupier of any land using a gun for the purpose of scaring birds or killing vermin, or by any person using a gun for these purposes by order of the occupier, if the occupier possesses a game or gun license, or by any gunsmith or his servant using or testing a gun in the course of trade.

LIABILITY OF GARDENERS (D. M. R.).—You can obtain a policy covering your liability under the Workmen's Compensation Act from the London and Lancashire Fire Insurance Company



COLLECTIONS OF DESSERT FRUIT AND EXHIBITS IN THE CHAMPION GRAPE CLASS AT THE RECENT SHREWSBURY FLOWER SHOW.

to you are pink Tulip Isabella and Tulipa Didieri alba, both of which flower together. Another good white, but with pink edging, is Picotee. All these are lasting Tulips, and will associate well with the Silene. A good mauve Tulip you will find in Zephyr, Lyacius, or Prevost Exilles, all of which are tall growing with cup-shaped flowers of remarkable beauty.—*J. W. Preston.*—The following six varieties would be worthy companions to Caroline Testout. They are free blooming, of vigorous growth, and yield beautiful shapely blossoms, and, moreover, the first three are sweetly fragrant: Gladys Harkness, Pharisæer, Mme. Abel Chateau, Admiral Dewey, Mme. Wagram, and Frau Karl Druschki.—*W. A. G.*—The Nectarine sent was so badly decayed outside that the skin had gone discoloured, but from the colour of the flesh and its good flavor we should say it was Lord Napier, still one of the very best Nectarines grown. This variety has large flowers and kidney-shaped glands. You will remember if your tree had large flowers, if so it is the variety named; being so much over-ripe made it difficult to recognise.

QUESTIONS.

PLANTS MENTIONED BY SHAKESPEARE.—Can you or any of your readers tell me what are the following plants mentioned by Shakespeare: Love-in-Idleness, Buckler's Berry, Long Purples, and Mary-buds?—*S. LLOYD, North Wales.*

WASPS AND DAHLIAS.—Is it usual for wasps to attack Dahlias? In a large bed of about twenty-four Cactus Dahlias, some eight or nine were spoilt by wasps, several dozen on each plant. They eat the stems nearly through.—*M. S.*

of 76, King William Street, London, E.C., or the Ocean Accident and Guarantee Corporation, 36 to 44, Moorgate Street, E.C.

NOTICE BY GARDENER (G. H.).—A gardener who is paid fortnightly need not give notice on his pay day. He can give a fortnight's notice at any time.

SOCIETIES.

NATIONAL CHRYSANTHEMUM SOCIETY.

THE executive committee of this society held a meeting on Tuesday, the 29th ult., at Carr's Restaurant, Strand, when Mr. Thomas Bevan occupied the chair. The chairman alluded to the special circumstances necessitating the meeting, and said he was sure the members all shared with him the deep regret he felt at the loss of their late secretary, Mr. Richard Dean, who had passed away after a long and painful illness. A vote of condolence with the family was proposed and passed unanimously.

With respect to the secretaryship, after a few introductory remarks from the chairman, Mr. Harman Payne proposed, and Mr. Such seconded, that Mr. Gerald Dean, the late secretary's son, should fill the post of secretary until the end of the present financial year. This was agreed to. A special resolution was passed empowering Mr. Gerald Dean to act in receiving all moneys, signing

cheques, &c. The superintendence of the forthcoming shows at the Crystal Palace was placed in the hands of a small sub-committee, consisting of Messrs. Castleton, Simpson, Hawes, and Moorman, with the officers.

Some little discussion took place on the subject of the appointment of a new secretary, and this matter was also referred to a special sub-committee to consider as to salary and duties, and a report will be submitted to the executive committee later in the season.

A vote of thanks was passed to the chairman for sending, in the name of the National Chrysanthemum Society, a beautiful wreath to the late secretary's funeral on the 26th ult.

MONTROSE.

THE Montrose Society is to be congratulated upon the successful show it held on the 18th and 19th ult. in two large marquees on the Mid Links, Montrose. Seldom, if ever, has such a fine display of horticultural skill been seen at Montrose in the twenty-eight years of the society's existence. A feature is the number of exhibits from nurserymen and others from a distance. Mr. E. Joss, Sunnyside, a well-known exhibitor at Scottish shows, was one of the principal winners, and his prizes include the Wellwishers' Challenge Cup for the best displays of fruits, flowers, vegetables, and plants, the first for best collection of fruits, and the same for the best collection of vegetables. Mr. James Gordon had the first prize for the best circular table with an exhibit characterised by high cultivation and graceful arrangement. Another feature of the show which deserves special mention is the window-box competition, which brought forward a number of competitors; while the table display competition was an excellent one. Mr. W. Stott having a creditable victory with his exhibit over Mrs. Black, who came second with a tastefully-arranged table.

ROYAL HORTICULTURAL SOCIETY OF PERTH-SHIRE.

To celebrate the centenary of its establishment the Royal Horticultural Society of Perthshire arranged for a show on a larger scale than usual, to extend over three days. This was held in the grounds of Pitcullen, the property of Mr. Henry Coates, the president, and terminated on the 19th ult., on which day it was estimated that more than 5,000 persons visited the show, and the takings for the three days amounted to £124 17s. 6d. The show was of exceptional merit, the judges having considerable difficulty in deciding the prize awards. Both the principal and smaller prizes were well competed for. The leading prize of the show, the Perth Town Council's Challenge Cup for the best group of plants went to Mr. John Leslie, Pitcullen; Mr. J. E. Davis, Ballathie, coming second. The Perth Merchants' Challenge Cup for a table of plants was also won by Mr. J. Leslie, his close rival being Mr. T. Dobbin, Dalhousie Castle. The plant classes were all good and well contested. The Brahan Cup, for a display of cut flowers and foliage, was won by Mr. J. E. Davis, Dalhousie, Mr. Dobbin being second, and Mr. Leslie third. The silver challenge cup offered by Messrs. Alexander and Brown for twelve varieties of Sweet Peas was won by Mr. J. Kennedy, Moness. The challenge gold medal presented by the General Accident Assurance Company was awarded to Mr. R. McNaughton, Battleby, for a collection of fruit. Mr. J. Leslie being second. The Rosebank silver bowl for a display of vegetables, twelve sorts, went to Mr. W. Harper, Tulliebelton. Amateurs showed well as a rule, and their produce was excellent in quality.

MUSSELBURGH.

THIS show, which was held in the grounds of Pinkie House on the 19th ult., was hardly equal to that of last year. Fruit was weaker, but the cut flowers were generally excellent. It is to be hoped that amateurs will compete more largely, and the success of one of their number ought to encourage them to exhibit more extensively. This was through a leading amateur (Mr. A. Davidson) securing the silver medal for the greatest number of points over the show. Mr. Davidson entered the lists in the professional classes as well as in the others, and made a most creditable appearance in both. He had twenty-eight first and nine second prizes. The leading prizewinners with flowers were Mr. W. Armstrong, Mr. R. McAndie, Mr. D. Kidd, Mr. W. McDonald, and Mr. D. H. Niven. With vegetables: Mr. McAndie, Mr. Davidson, Mr. Kidd, Mr. Thomson, and Mr. D. Wood. Fruit: Mr. Kidd, Mr. McAndie, Mr. Thomson, and Mr. D. Wood. Among the amateurs the following led: Mr. Davidson, Mr. W. Wood, Mr. G. Hawley, and Bailie Bissett for flowers, Mr. Williamson for fruit, and Mr. Davidson and Mr. Wood for vegetables.

NORTH BERWICK SHOW.

THIS show, which was held in the Foresters' Hall on the 18th ult., was a highly satisfactory one, the exhibits being both more numerous than in former years and of better quality. It was opened by Mr. G. McCrae, M.P., in the presence of a large and distinguished company of local residents and visitors. The appearance of the hall was much enhanced by the non-competitive exhibits of Messrs. Cunningham, Fraser, and Co., Edinburgh; Mr. John Downie, Edinburgh; and Messrs. Matthew Campbell and Son, High Blantyre. Herbaceous plants, for which special prizes were offered, were fine, the first prize being won by Mr. A. Binnie, Redholm, who had also a number of prizes in other classes. Other successful exhibitors of flowers were Messrs. J. McDonald, The Lodge; Mr. W. Miller, Tusculum; Mr. T. Lees, Mr. H. Reid, and Mr. Deas. In fruit: Mr. J. Anderson, Inchgarry, led for Grapes; Mr. J. Law for Peaches and Nectarines; and Mr. J. Woodcock

for Apricots, Plums, and Melons. Mr. J. McDonald was the winner for his collection of twelve sorts of vegetables, and Mr. A. Binnie in that of ten. Amateurs and cottagers made a most creditable display.

BRIGHTON FLOWER SHOW.

IN the Dome and Corn Exchange attached to the Royal Pavilion the fourteenth annual show was held on the 22nd and 23rd ult., and was in point of quality equal to any of its predecessors. Fruit and vegetables were not so numerous as in some past years, but cut flowers, groups for effect, and table decorations were quite up to the average. The arrangements here are quite of the best under the able guidance of Mr. Thorpe, the secretary.

PLANTS.

For a group of miscellaneous flowering and foliage subjects arranged for effect there was keen competition. Mr. G. Miles, Victoria Nursery, Dyke Road, Brighton, won the coveted award, a silver cup. Mr. G. Sims, gardener to E. A. Wallis, Esq., Sunnyside, Upper Lewes Road, Brighton, was second; Mr. J. Harper, gardener to E. A. Tucker, Esq., Vernon Lodge, Preston, third.

Ferns arranged in groups made a pleasing display on one side of the spacious Corn Exchange. Mr. James Adams, gardener to the Rev. Sir G. C. Shiffner, Bart., Coombe Place, Hawsley, Lewes, was easily first with grandly grown specimens. Mr. G. Miles was second with smaller plants.

Flowering and foliage plants arranged on a table 8 feet by 4 feet made a bright display in the centre of the Dome. Mr. G. Eastwood, gardener to Mrs. Gould, the Downs Hotel, Hasocks, secured the premier award. Mr. H. Goldsmith, gardener to D. Hack, Esq., Fir Croft, Withebean, was second, five competing. Mr. H. Garnett, gardener to R. G. Fletcher, Esq., Withebean, was first for six Crotons in pots not to exceed 12 inches diameter; Mr. J. G. Eereveld, gardener to G. H. Young, Esq., Withebean Grange, Brighton, second. The last-named won for six Dracænas. Coleus were remarkably well shown. Mr. Collis winning the premier award in strong competition.

Cut flowers were numerous and good. For a collection of Carnations artistically arranged on a table 4 feet square, for which a handsome silver challenge cup was given, Messrs. H. and J. Elliott, The Nurseries, Hasocks, were easy winners with superb flowers on long stalks; Miss Shiffner, Coombe, Lewes, was second.

Roses were not numerous, but very bright and fresh. For twelve, distinct, Mr. H. Hains, gardener to E. M. Eversfield, Esq., won first prize; Mr. T. D. Young, The Nurseries, Eastbourne, second.

Dahlias were very finely shown. For twenty-four show or fancy in not less than twelve varieties, Messrs. Cheal, Lowfield Nurseries, Crawley, were first. Messrs. Cheal also won for twelve Pompons in bunches with exceptionally neat flowers. For twelve bunches of Cactus varieties Messrs. J. Stredwick and Sons, Silverhill Park, St. Leonards-on-Sea, staged charming blossoms; Messrs. Cheal were second. Gladioli were well staged. Mr. James Rogers, gardener to C. E. F. Stanford, Esq., St. Aubyns, Rottingdean, was first with clean flowers. Annuals were well displayed for twelve distinct kinds in bunches. Six competing. Mr. J. Davis, gardener to Major E. H. Thurlow, Buckham Hill House, Uckfield, being first.

Hardy perennial and bulbous flowers were numerous contributed, the eighteen bunches in each of the four collections making a bright display. Mr. J. Davis won the first prize.

Bouquets were a poor display, but dinner tables decorated were a great feature. Amongst nine entries Miss Florence Molyneux, Swanmore Farm, Bishop's Waltham, Hants, was distinctly ahead of all others with suitable material artistically arranged; Mrs. Rapley, 66, Islingwood Road, Brighton, was second.

Fruit was of good quality. For a collection of eight distinct kinds, Pines excluded, Mr. John Gore, Albion Nursery, Polegate, was first. Black Hamburgh Grapes were fairly well shown. Mr. C. Earl, gardener to Sir O. E. Davidson Goldmid, Bart., was first. Peaches were very fine. Mr. A. Verrall, gardener to A. Shenstone, Esq., Sutton Hall, Barcombe, was first with extremely fine Barrington amongst ten exhibitors. Apples and Plums were remarkably well shown. Vegetables were moderate in quantity and quality.

Exhibits not for competition were distinctly attractive. Messrs. T. Rivers and Son, Sawbridgeworth, Herts, had a remarkable collection of fruit trees in pots. Apple Peas-goods' Nonsuch had enormous fruit. Late Duke Cherry, Peregrine and Dagmar Peaches, Pine Apple Nectarine, Rivers' Late Orange, Late Prolific, and Golden Transparent Plums, with Black Hamburgh and Foster's Seedling Grapes made an interesting display. Gold medal. Messrs. W. Balchin and Sons, Brighton and Hove Nurseries, arranged a splendid group of flowering and foliage plants. Gold medal. Messrs. John Laing and Sons had Caladiums, Begonias, &c., a fine exhibit. Silver-gilt medal. To Mr. Russell a similar award was made for an interesting exhibit.

HORTICULTURAL TRADES' ASSOCIATION.

ANNUAL MEETING AT WORCESTER.

FOR the past five years the association has held its annual meetings in London, but this season the council determined to inaugurate a series of country meetings, to be held by rotation in the principal centres throughout the kingdom. This departure has proved an unqualified success in every way, and will probably form a precedent for all future meetings. The generous hospitality and unwearying efforts of the past president, Mr. Carrington, through the whole of the two days put the finishing touches to a most interesting and instructive outing.

Thirty-five members assembled from all parts of the country, some even journeying as far as from Scotland, Ireland, and the Channel Isles. The social side of the association's work was felt by all to have been advanced by the meeting in a way never previously experienced.

Punctually at 9.30 on the Thursday the party started for Messrs. Richard Smith and Co.'s nurseries, accompanied by the proprietor, Mr. R. Smith-Carrington. As the grounds are some 300 acres in extent, and took with the glass houses three hours to inspect even cursorily, no attempt will be made to give a catalogue of their contents.

The afternoon was spent in inspecting the nurseries of Mr. J. H. White and Mr. W. B. Rowe, not covering so many acres as seen in the morning, but each containing several features of interest. With Mr. White was noted a splendidly grown lot of standard Apples, among a varied stock suited for a local trade. At Mr. Rowe's nursery the general interest centred on his two new Apples, King Edward VII. and W. Crump, the former a very valuable culinary variety, and the latter a table fruit resembling Worcester Pearmain, but with very high flavour and not in condition till March.

After dinner and the usual loyal toasts had been honoured, the election of officers took place. Eight members of council retiring by rotation were re-elected without opposition. One vacancy only remained, which was filled by the nomination and election of Mr. A. W. Paul, of Waltham Cross. The retiring president nominated Mr. Stuart Low (Hugh Low and Co.) as his successor. The motion was seconded by Mr. H. S. Rivers and carried by acclamation.

Friday's proceedings opened with a brake drive of seven miles through a charming country, to the celebrated gardens of Madresfield Court, thrown open by special permission of Earl Beauchamp. All present were aware of Mr. Crump's fame as a fruit grower, but only one or two had any idea of the wealth of interest these noble gardens contain in conifers, hardy flowers, &c.

Gardeners' Royal Benevolent Institution.—Mr. George Bunyard, V.M.H., has forwarded to the Gardeners' Royal Benevolent Institution a donation of £5 18s. 6d., being the amount received by him for naming fruit for non-customers and the trade.

Henry Eckford Testimonial.—Closing of the fund.—The committee has resolved that this fund shall be closed on Saturday next (September 9). Will those, therefore, who still desire to contribute, kindly send to me on or before that date? The subscriptions to the evening of Saturday, the 2nd inst., are 1,124½ shillings.—HORACE J. WRIGHT, *Dault Road, Wandsworth.*

British Gardeners' Association. A meeting of the executive council of the British Gardeners' Association was held at the Hotel Windsor on the 29th ult. The secretary reported that seventeen new members had joined since the previous meeting, bringing the total up to 675. Messrs. Hawes and Frogbrooke were elected on the council. Messrs. Pearson, Curtis, and the secretary were appointed a sub-committee to draft the rules of the association and to submit them to a future meeting. It was decided to hold the meetings of the association in future at the hall of the Royal Horticultural Society, Vincent Square, Westminster. As it was impossible to secure a suitable meeting place on any of the days of the Royal Horticultural Society's fruit show in October, it was decided that the conference should be deferred. Mr. Watson made the following statement: "I regret to have to inform the council that the Board of Agriculture have called upon me to relinquish my connexion with the British Gardeners' Association, as they consider it incompatible with my position as a public servant that I should assist a movement of this kind. Whilst this precludes me from taking any further part in it, the association will always have my best wishes for its success. It must not be inferred that the Board of Agriculture disapprove of the British Gardeners' Association because of their objection to my taking a part in it. I have the fullest belief in the aims of the association, which must succeed if the original programme, as set forth in our prospectus, is rigidly adhered to." The next meeting will be held at the hall of the Royal Horticultural Society, Vincent Square, Westminster, on the 26th inst.—J. WEATHERS, *Secretary.*

* * * The Yearly Subscription to THE GARDEN is: Inland, 6s. 6d.; Foreign, 8s. 9d.

THE GARDEN.

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THE NEW MONTBRETIAS.

THE Montbretia is such a valuable garden flower that the following notes about the newest varieties and hybrids, written by Mr. Davison, well known as a grower of this plant and a raiser of many beautiful sorts, can hardly fail to be read with interest:

Amongst the many beautiful flowers of the hardy flower garden Montbretias deserve a high place for massing in large groups and for colour effect, as they can be seen for a considerable distance. Large breaks of them seen across a lawn with the sun shining on them are very fine, and they are also very bright even on a wet day. If planted in good patches in the hardy border they will add brightness at a time when so many good things are just going off, the time of flowering being from the middle of July till the middle of September.

For decorations in a cut state they are admirably adapted. Branching spikes from 2 feet to 3 feet long, arranged in large vases with their own foliage or that of *Typha angustifolia* for the hall or drawing-room are charming. By changing the water every other day they will remain fresh for ten days, as all the buds develop and open in water without flagging. For dinner-table decoration they are quite the prettiest flowers at this season of the year. Its natural habit at once makes it suitable for this class of work. The small side sprays, which in some varieties are erect, showing the flower full-faced, and in others of slightly drooping habit, are very graceful. The colours, again, are delightful—lemon, yellow, golden, orange, bronze, and shades of red, whilst some have rings or zones at the base of the segments, the colours harmonising rather than contrasting; no ugly lilacs or crude magenta, but just the colours that are so pleasing. There is some difference in the shape of the flowers. Some are campanulate, others flat or wide open, and in a few the segments are reflexed, giving them the appearance of small Martagon Lilies.

I had not intended writing so much on the merits of Montbretias, but they deserve all one can say about them. This popular flower is very easily grown. If planted in beds or borders and left alone it becomes a thick mass, and is then useless as far as the flowers are concerned, as the size of the flowers depends in a measure upon the cultivation received.

I have tried various ways of growing Montbretias, and have been most successful in the one I will try to describe. Locality and soil possibly make a difference. It is sometimes recommended that the bulbs be taken up and dried, which I consider very

injurious to them. A friend of mine read an article in a paper last autumn where it was advised to take the plants up in October, divide and replant them. He followed this advice with disastrous results, losing every one in the winter, wet and frost no doubt rotting the bulbs. My friend weakened his plants by taking them up, as they could not get a root-hold again before winter. They will survive the winter in any fairly light soil if left undisturbed. In January, 1895, we registered frosts below zero; my Montbretia bulbs were destroyed, but the stolons were alive, and I planted them in March and had a fine border of flowers. Golden Sheaf, *Crocsmiaeflora*, and Pottii were the only forms I had at that time. I believe some of the Continental varieties are tender, but we have already varieties in commerce of undoubted constitution and hardiness. The soil here is a sandy loam, which I believe is the most suitable for them.

Now is a good time to give one's experience of culture, as I consider the end of September, before the frosts come, is the right time to take the plants up. By that time the stolons that grow from the bulbs will have pushed through the surface and formed small leaves; in fact, they are small plants, although attached to the parent bulb. These, having roots of their own, and already the embryo bulb is formed, I cut off and prick them out in boxes of sandy loam and leaf-mould, 3 inches apart, placing them in cold frames, where they remain all the winter.

With protection from frost they will keep on growing all through the winter, and by the end of March they will be from 6 inches to 1 foot high. In the meantime the beds and borders, or the patches on the herbaceous borders, are prepared by deeply digging in some well-decayed manure, such as an old hot-bed, which I find excellent for them. After carefully hardening the plants I plant them out the last week in March or the first in April. If on a border or bed by themselves I give them 1 foot between the rows and 8 inches from plant to plant.

This year after I had planted we had heavy falls of snow, quite 4 inches deep, followed by scathing north-east winds, which turned the foliage quite brown. I had almost despaired of them, but they have been quite as fine as I have ever seen them, many attaining to the height of 4 feet. Treated in this way the young plants give one large branching spike. On the variety George Davison I have had many spikes that have produced over 200 flowers this year. The old bulbs that I have taken the stolons from I box and treat in the same way. They generally give two or three spikes, and flower a week earlier. To those who have not the convenience of cold frames to give them this mode of culture I advise leaving the plants out till the first

week in March. The weather then being favourable, take them up and carefully separate the bulbs which have stolons attached instead of removing them as described above. Plant them intact, spread out the stolons, and cover with about 3 inches of soil. The result will be four or five or more good sturdy growths, which will give fine blooms a little later than by the first system of culture. They enjoy full sunshine, and the soil should be kept fairly moist by watering in the evenings of hot days, but do not mulch, as the bulbs like warmth during growth.

The varieties of Montbretias are numerous. Many fine hybrids recently raised will soon come to the front, which will mean the weeding out of all the old ones from the gardens where only the best are desired. Amongst the best are Germania, quite the finest red at the present time, although its individual flowers are seldom perfect; still, for a group seen from a distance the colour is charming. Well-grown plants are from 3 feet to 4 feet high. Award of merit, Royal Horticultural Society, 1901.

Messidor, a lemon colour, with the centre faintly blotched with rose. It is a strong grower, producing good spikes, with a free branching habit, very pleasing, and quite a good kind.

George Davison (award of merit, Royal Horticultural Society, 1902) is the earliest to flower. It is a very strong grower, attaining a height of 4 feet. The blooms are golden yellow, and very large. This variety is very floriferous; three spikes on one plant produced 638 blooms this season.

Hereward (award of merit, Shrewsbury), I believe, is the largest and best yellow. It is 2½ feet high, and the spikes are erect, with every flower at right angles to the stem, so that its full beauty can be seen. For cutting it is perfect.

Westwick (award of merit, Shrewsbury) may be described as a tricolor. The segments are orange, with a maroon ring, and the centre is yellow. It has a free branching habit. The poise of the flowers with their reflexed segments is very graceful, giving it the appearance of a small *Lilium Martagon*.

Prometheus (award of merit, Royal Horticultural Society; first-class certificate, Shrewsbury) is the largest of all Montbretias. The flowers are orange, with a large crimson zone. It is a very strong grower, and will become popular.

Ernest Davison, the seed-parent of Prometheus, is a very early variety, and will make good groups.

Anglia, quite a good one, bears large blooms, and is a strong grower. Its blooms are yellow, flushed with red.

King Edmund, a very bright yellow, tall and strong.

Of Continental varieties I am told that Anneau d'Or, Tragédie, and Tête Couronnée are excellent. I have tried many hybrids that have been sent out from time to time, and I can call to mind quite three dozen that have had their day and are now cast away to make room for better ones.

I believe there is a great future for this lovely race of plants, as my experience during the last few years in the cross-hybridisation of these flowers has convinced me that many good things are sure to follow.

Westwick, Norwich. G. D. DAVISON.

COLOURED PLATE.

PLATE 1282.

ANEMONE KING OF SCARLETS

ANEMONE CORONARIA FL.-PL. KING OF SCARLETS was first noticed by Mr. B. Gilbert (founder of the firm of Gilbert and Son, Anemone Nurseries, Dyke, Bourne, Lincolnshire) in 1875, growing in a bed planted with Anemone Queen of Roses. It was distributed by Messrs. Gilbert and Son in 1881, and to-day it may safely be said to stand unrivalled in shape, colour, and vigorous growth. As a cut flower it is invaluable, and will last ten days or more in vases. This Anemone is quite hardy, and may be planted from August until the end of October, or from February to the end of March. It grows well in ordinary well-drained garden soil. Gilbert's Anemone King of Scarlets is quite distinct from and far superior to the Dutch variety of the same name. The demand for Anemones is rapidly increasing, and these old-fashioned garden flowers are once again sought after for producing brilliant displays in springtime.

PRIZES FOR GARDENERS.

THE AUGUST COMPETITION—AWARDS.

THE essays on "Beautiful Ways of Planting Hardy Spring-flowering Bulbs" were excellent, and it has been a matter of some difficulty to award the prizes. After careful consideration of the large number sent in by competitors from many different parts of the country, we have awarded the first prize of four guineas to Mr. E. H. Jenkins, Hampton Hill; the second prize of two guineas, to Mr. G. B. Mallett, 12, Orchard Road, Colchester; the third prize of one guinea to Mrs. M. E. Bickersteth, West Lodge, Ripon; and the fourth prize of half a guinea to the Rev. H. Kingsmill Moore, D.D., Cedar Mount, Dundrum, Dublin. The winning essay will be published next week.

RECENT PLANT PORTRAITS.

THE *Botanical Magazine* for September gives portraits of

Petasites japonicus.—Native of Eastern Asia. A very large and coarse-growing plant with tall flower-stems, which are crowned with large bunches of small, pure white, Ageratum-like flowers.

Cirrhopetalum breviscapum.—Native of Malaya. A curious small-flowered Orchid of but little beauty.

Prunus pendula.—Native of Japan. A small pink-flowered Plum with pendulous flower bunches.

Scilla messeniaca.—Native of Greece. A rather pretty Squill with upright bunches of greyish lilac flowers.

Cotyledon insignis.—Native of Nyasaland. This is said to be one of the handsomest members of its family, and produces spikes of large tubular flowers of a light orange colour.

The second number of the *Revue Horticole* for August contains a portrait of

Prunus blireiana, with the dark brown foliage of P. Pissardi, and medium-sized double rose-coloured flowers.

The September number of *Revue de l'Horticulture Belge* figures

Helianthus salicifolius, the Willow-leaved Sunflower from North America, an old plant now seldom seen.

The August number of *Flora and Sylva* figures a beautiful group of varieties of the

Barborton Daisy (Gerbera) obtained by Mr. Irwin-Lynch, Curator of the Cambridge University Botanic Garden, by crossing the well-known G. Jamesoni with a pure yellow self-coloured variety named Sir Michael, raised from seed sent him by Mr. Adlam of Pietermaritzburg. These beautiful hybrids, with fine flowers varying in shade of colour from pure white to deep scarlet, excited universal admiration when exhibited by their raiser in a fine group at the Temple show of last year, when they very nearly obtained the Veitchian Cup as the most interesting exhibit in the show.

W. E. GUMBLETON.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

September 19.—London Dahlia Union Show at Earl's Court (two days).

September 26.—National Rose Society's Autumn Rose Show, Horticultural Hall, Westminster (two days).

October 4.—National Chrysanthemum Society's Show (two days).

October 10.—Royal Horticultural Society's Show of British-grown Fruit.

October 24.—Royal Horticultural Society's Meeting (Vegetable Show).

October 31.—Southampton Horticultural Show (two days).

Mr. A. E. Brown, of the Royal Botanic Gardens, Kew, has been appointed an assistant in the Calcutta Botanic Gardens, India.

The Edinburgh Show.—At the moment of going to press we have received a wire from our Edinburgh correspondent stating that the great International Show opened there on Wednesday last, the 13th inst., is a record one in every respect. We shall give a full report in our next issue.

Henry Eckford Testimonial.—The serious illness of Mr. Henry Eckford made it imperative that the presentation arrangements should be altered. It was decided that the illuminated address and the tea and coffee service should be taken to Wem. This was done and the presentation made quietly on Saturday morning last. Mr. Eckford was deeply affected, and could scarcely thank the friends who had subscribed to the gift. He made his gratitude clear, and also his sorrow that he could not meet his friends in Edinburgh according to arrangement. The total sum of the contributions is £58 17s. 9d.

Solanum Wendlandii.—We hear sometimes of this flowering out of doors, but that it well repays additional heat is shown by the magnificent display it makes in the warmest end of the fine succulent house at Kew, as well as in other places in the gardens. This member of the Potato family is a native of Costa Rica, and was first flowered in the Royal Gardens, Herrenhausen, Hanover, being named in honour of the then director, the late Dr. Wendland. The Kew plants were, I believe, obtained from that source, and for many years their annual display of blossoms has gained them hosts of admirers. This species is now fairly well known, and is

kept in many good nurseries; indeed, Messrs. Veitch have exhibited it in the shape of comparatively dwarf plants, carrying fine heads of blossoms, whereas its usual habit is that of a vigorous climber, which in summer bears a profusion of beautiful light blue flowers, over 2 inches across and disposed in large heads quite 1 foot in diameter. The leaves vary considerably in shape, some being quite simple, while others are more or less pinnate. It loses its leaves during the winter, at which time the soil should be kept fairly dry. The propagation is by no means a difficult matter, as cuttings strike root very readily if put into sandy soil in a close propagating case.—H. P.

Lælio-Cattleya elegans var. Noro.—Among the plants of Lælio-Cattleya elegans recently in flower at The Woodlands, Streatham, there was one variety of which particular mention may be made. It is one of the richest in colour that has ever been seen, and flowering for the first time. The form of the flower is excellent, and in point of size it is one of the finest. It is fully 7 inches across the petals, and these with the sepals are a bright and almost pure purple, the front lobe of the lip with its remarkable ridge-like veins being a very deep purple-crimson, which colour also runs down the centre of the lip to the base of the column. The folding side lobes are white and rose. We have on many previous occasions noted in our columns the many rich and beautiful varieties of this natural hybrid in Mr. Measures's splendid collection.—ARGUTUS.

Lobelia cardinalis.—The Rev. David R. Williamson writes: "The great American Lobelia (*L. cardinalis*) is at present creating magnificent effects in association with the most brilliant Begonias at Logan House in Wigtonshire, the beautiful residence of Mr. Kenneth McDouall. It may not be known to all ardent cultivators of Lobelia cardinalis that it receives a splendid eulogium from the late Sir Archibald Alison in his famous 'History of Europe' in an incidental passage of great beauty on the scenery of North America."

The best Rose.—Your correspondent W. Chapman, in the issue of THE GARDEN for the 12th ult., gives a description of a Rose with very many good qualities, and enquires if other people know of equally good sorts. I only know of two which answer that description, one is G. Nabonnand and the other is Prince de Bulgarie. Perhaps W. Chapman will give us the name of the Rose he described. G. Nabonnand does not answer quite all the requirements, as it does hang its head, neither could either of them be described as "brilliant" in colouring.—R. A. TENNANT, Sutton, Loughborough.

Brentford Market.—Mr. Leopold de Rothschild will lay the memorial stone, on the 18th inst., of the extension of the Brentford Fruit and Vegetable Market. The existing market was opened by the Lord Mayor in 1894. The extensions have cost £50,000, and cover an area of twelve acres.

Bulb sorters' finger-nails.—"E. M. Haggard" writes from Bournemouth: "A friend of mine, whose symptoms two doctors have failed to account for, has been suffering in exactly the same way as your correspondent ever since her last planting of bulbs, and she now feels tolerably certain that she has found out the cause of the mischief. If the complaint is not an unusual one surely some one must have discovered a remedy. I should be grateful for any suggestions."

South-Eastern Agricultural College.—The next session at the South-Eastern Agricultural College, Wye, Kent, will commence on Monday, October 2, when there will be ninety-four students in residence. The inaugural address of the session will be given by Professor Marshall Ward, F.R.S., Professor of Botany, Cambridge University.



ANEMONE 'KING OF SCARLETS.'

Pompon Chrysanthemum J. B. Duvoir.—In the deep soil of Bolehall House Gardens, Tamworth, Mr. W. Sydenham grows this plant to perfection. It is one of the least known of the early-flowering Pompon sorts, and deserves a place in all gardens. In the cooler climate of the Midlands the colour is a bluish pink, the flowers being of good size, and each one standing out well from its neighbour. The plants are about 1½ feet high, with a good habit. In the South of England the colour is much less pronounced, being a pale blush until the later days of September, when it is deeper.—D. B. CRANE.

Cotoneaster microphylla growing wild in Britain.—It may be worth while recording that *Cotoneaster microphylla* is well established in different parts of Glamorgan-shire as a wild plant. It occurs in nearly all cases in exposed limestone strata in places where it is impossible to think that it has been planted by human hands. As it is common on the cottage walls, and as thrushes are particularly fond of the berries, it is most probable that the seed has been deposited by them. The plant grows in a limestone quarry at Cornelly, and in a similar situation at Caerphilly.—W. F. EVANS, in *Journal of Botany*.

Primula Kewensis.—This is a beautiful spring-flowering plant for the greenhouse or dwelling-room, and those who have grown it this summer for the first time should not make the mistake of over-potting the plants, especially at this season. One of the chief attractions this plant has is the great number of flower-spikes produced on plants occupying small pots. To a great extent overgrown plants lose their neat, compact habit. The leaves as well as the flower-stalks become long, especially if subjected to the least warmth as they push forth, and they do not stand erect. Small pots crowded with roots are the best, as with feeding and cool treatment from now to flowering time the most pleasing specimens are produced.—R. P.

Clerodendron trichotomum.—In the South of England, at any rate, this is a valuable autumn-flowering shrub or small tree, especially after such a summer as we have had this year. I am well aware that our northern friends do not regard it in the same light as those in southern localities, for their complaint is that it seldom flowers. This certainly cannot be put forward to its detriment in the neighbourhood of London, for, given a moderately dry soil and a sunny position, it is in every way satisfactory. From a foliage point of view alone it is decidedly handsome, the broadly ovate leaves being 6 inches to 8 inches long and deep green in colour. The flowers, which are freely borne in upright panicles, are white, but, as in many of the *Clerodendrons*, they protrude from an inflated calyx, which in this species is of a reddish-purple tint. The leaves have a decidedly unpleasant odour when bruised. This *Clerodendron* is said to have been introduced over a century ago, but thirty years since it was little known, and it was only in 1893 that it was given a first-class certificate by the Royal Horticultural Society. Like many of its near relatives, it is readily increased by root cuttings.—T.

A good shrubby Hibiscus (H. Cæleste).—The only decidedly shrubby member of the Mallow family that can be considered quite hardy even in the southern half of England is *Hibiscus syriacus*, formerly known as *Althæa frutex*. The specific name of *syriacus* would suggest that it is a native of the Orient, but on this point I believe there are certain differences of opinion, for China has been by some regarded as its native country. Like its relative the tropical *H. rosa sinensis*, the varieties of *H. syriacus* are innumerable, both single and double flowers of various shades of colour being represented among them. The double flowers, though admired by some, are, to my mind at least, lumpy in themselves, and a specimen laden with them

simply shows a confused mass of petals, but the single flowers are very different. A great favourite of mine is *Cæleste*, whose large well-expanded blossoms are in colour bright blue, with a reddish tinge at the base of the petals. A bush of this studded with these shiny blossoms is very beautiful in the latter part of August or even later, at which time few outdoor shrubs are in bloom. Another single form whose white flowers are lit up by a crimson blotch at the base of each petal is, I believe, regarded as the typical *H. syriacus*. At all events, it is to my mind one of the very best, and furnishes a delightful companion to the preceding.—T.

Nicotiana Sanderæ.—It is a long time since a newly-introduced plant was so much freely talked of and written of and so widely grown as this new Tobacco, and, as was naturally to be expected, some are pleased with it and some are not. I am glad to be able to say that I agree with those who think it is an excellent hardy plant, and a valuable help to the embellishment of the flower garden. I have grown *Nicotiana Sanderæ* in a small town garden, both in a tub and in the border, and have every reason



NICOTIANA SANDERÆ IN TUB.

to be fully satisfied with it. The photograph which I send shows it as a tub plant. For several weeks it was very beautiful, and bore a large number of rich rose-red flowers. They were not an unpleasant colour as some of your correspondents seem to have found them to be, but a distinct and pleasing rose-red. The plant in the tub was put out early in May, and by the end of July was fully in flower. It was very beautiful for quite a month, and even now there are some flowers open. As the illustration shows, the plant was symmetrical. On account of its graceful branching habit of growth, each shoot, from top to bottom of the plant, freely bearing flowers, it seems to me to be especially serviceable for culture in a tub or large pot. Another year I hope to be able to grow several more in tubs. When space is limited, tub gardening is an excellent thing to practice, and to my mind *Nicotiana Sanderæ* is a most suitable and showy plant for this purpose. The tub in which it was grown was placed at the foot of a fence, and facing south-west. My experience of this *Nicotiana* (and I have seen many plants this year) is that the flowers vary a good deal in

colour. Some are a distinct and rich shade of red, while others are less pleasing. Even the two plants I have produced flowers of a different shade of colour, the one being richer and more attractive than the other. I do not think that the fact of the flowers being smaller than those of *N. affinis*, as has been urged against them by some of your correspondents, is a matter of much moment, providing that the colour is good and they are numerous produced. I do not believe it to be a good plant for the mixed border. It needs a large bed to itself, so that it may have plenty of air and space, otherwise the shoots are liable to become weak and drawn.—T.

Tamarix Pallasii rosea.—This is one of the most delightful of late summer flowering shrubs, at which season the choice of such subjects is very limited. Though if untouched it might attain tree-like dimensions, as the common *Tamarisk* does, yet if cut back annually in early spring it may be readily kept in bush form. The small leaves and their distinct greyish shade remind one greatly of a member of the *Cypress* family, so that even when out of bloom it is decidedly pretty. They are of a charming shade of bright pink, and are borne in axillary spikes about 3 inches in length for some distance along the current season's shoots, each of which thus forms quite a long pink spray. While this *Tamarisk* is grown under the above name at Kew, it is better known by that of *Tamarix hispida æstivalis*. The typical *Tamarix Pallasii* is native of a considerable tract of country from Eastern Europe to Afghanistan.—T.

Tufted Pansy Peace.—This is one of the most refined of the more recently introduced Tufted Pansies, and is, at the moment, comparatively little known. The plant is very free, tufted in habit, strong, and from the earliest spring days repays one with a wealth of blossoms. It is a fragrant flower of ideal form, being of circular shape, beautifully flat, and evenly built and rayless. The colour is neither white nor blush, but blush white. It is a distinct break from the older forms of the Tufted Pansies, and, being rayless, possesses a charm which those of the older types, with their rays, do not possess. The plant likes a deeply-dug and well-manured soil, the growth in consequence being free, so that each little piece, placed in its flowering quarters in the spring, will, before the summer season is over, develop into a plant a foot or more in diameter. It is astonishing what the plant will accomplish in the course of a season's growth, and at the same time there is not the slightest trace of coarseness in its growth or in the flowers.—D. B. C.

A BEAUTIFUL GARDEN IN LONDON.

HOW often one has heard the remark passed that gardening is a failure in London. The general opinion seems to be that the atmosphere and fogs are fatal, and that the successful raising of fruit, flowers, and vegetables is almost an impossibility. This is very far from being the case, for gardening in all its branches is carried on at South Villa, Regent's Park, with great success, and South Villa is situated within a radius of two miles from Charing Cross, practically in the centre of London, and almost, as one might say, in the midst of the fogs and smoke. There are about eleven acres of land surrounding South Villa, very finely wooded with stately Elms, Plane, and Chestnut trees, and there are also to be seen some splendid specimens of the Weeping Ash, which completely hide the iron trellis supporting their branches. White and red Thorns are dotted here and there about the

grounds, and give a pleasing effect when they are in bloom. In the springtime wood-pigeons and blackbirds build their nests among the trees and rear their young as peacefully as if they were a hundred miles in the country, and it is a very pleasing sight to see them in the evenings feeding about the grounds.

The house is situated in the centre, and is approached by a fine avenue of trees. The lawns are well kept, and slope to the beautiful lake in Regent's Park, which borders one side of the grounds. There are fine borders of perennials, as well as beds for summer and winter bedding. The mansion itself is a substantial structure, the walls being covered with *Ampelopsis Veitchii* and Ivy, which give a beautiful effect. The present owner is Miss Adamson, a lady whose name is well known at London horticultural exhibitions. Mr. G. Kelf, who has been head gardener at South Villa for some seventeen years, fully understands the requirements of a London garden. On looking round, on a bright summer day, one would hardly see that it could be more difficult to manage successfully than gardens in the country; but, on going round the kitchen garden and through the glass houses after a November fog, the difficulties to be contended with are at once apparent. The fog settles on the glass, and it would seem as though blinds were drawn over the roofs, the light being almost completely shut out; and it is then that the gardeners have their work cut out in order to get over these severe difficulties with success, but it can be done.

Mr. Kelf has under his management fourteen fruit and plant houses. The conservatory is a fine electrically lighted building, 70 feet long, 30 feet wide, and 25 feet in height. It is now gay with *Lilium*, *Plumbago*, *Campanula*, *Hydrangea*, *Fuchsia*, *Celosia*, and a lovely strain of *Canna*, with greenery of *Palms*, *Asparagus*, and *Ferns*. One of the chief features of the conservatory is the bed of *Palms* in the centre; some are quite 20 feet in height. There is also a very fine *Tree Fern* about 12 feet high. Leading from the conservatory by a short passage is the stove house. Here, again, is a fine collection of smaller *Palms*, used for house and table decoration, also a very useful collection of other plants, such as *Pandanus*, *Dracæna*, *Dieffenbachia*, *Panicum*, &c. In this house *Bananas* are also grown. The *Camellia* house is large and very ornamental. It is built of mahogany, and was originally used as a tea house. *Roses* trained on wires give a very pleasing effect, and bloom very freely in the early spring.

There are three *Peach* houses, containing some very fine trees, bearing a large crop of first class fruit. The Dr. Hogg is a grand *Peach* for growing in London, a dish of which Mr. Kelf exhibited at the Royal Horticultural Society's meeting on July 4th last, and for which a silver Banksian medal was awarded. *Royal George*, *Princess of Wales*, and *Dymond* do well under the conditions in smoky London. *Fig* trees in pots are looking well and carry some very nice fruit. There are three vineries, one containing *Black Hamburgh*, *Foster's Seedling*, and *Buckland Sweetwater* varieties, one is devoted to *Muscat of Alexandria*, and the other to *Black Alicante*, *Foster's Seedling*, and *Gros Maroc*. These are not forced very early, and large bunches are not the rule, but fine well-finished berries are secured. On the back walls of these vineries the *Camellia*

is grown, and blossoms in the early spring being very useful for vases, &c. *Tomatoes*, *Cucumbers*, and *Melons* are grown in other houses, and very successfully, too. A fine lot of *Tomatoes*, including *Best of All*, *Perfection*, *Golden Jubilee*, and *Sunbeam*, have been gathered this season. Several varieties of *Melon* have been grown, including *British Queen*, *Hero of Lockinge*, *Ringleader*, and a splendid seedling raised two years ago by Mr. Kelf named *Regent's Park*. Fruits of this latter variety weighing as much as 6 lb., and perfectly finished, have been cut, and some thirty plants, looking particularly promising, occupy the whole of one house.

A large span-roof house is well filled with *Crotons*, *Caladiums*, and *Orchids*. The *Caladiums* are of a beautiful colour, and the *Crotons* are almost perfection. In winter this house is filled with some 400 *Poinsettias* of the early and late varieties. *Pot Plums* occupy another house, and some first rate fruit is ripening at the time of writing, such varieties as *Kirke's*, *Coe's Golden Drop*, *The Czar*, *Late Orange*, *Cox's Emperor*, *Early Transparent*, and others being grown. There are also some young *Apple* and *Pear* trees in pots, which should fruit well next season; from experience, Mr. Kelf finds that *Apples* and *Pears* are not a success, especially when espalier trained, but a fair crop of fruit can be gathered when grown as bushes.

Bulbs are forced extensively for winter and spring use, such as *Tulips*, *Daffodils*, *Narcissi*, *Hyacinths*, *Liliums*, &c. *Gooseberries* do remarkably well. They are corded and espalier trained, and are extended along the side walks of the kitchen garden, and can be easily netted. *Red Currant* bushes have also borne an exceedingly good crop this year, this fruit doing particularly well in London, if frequently fed with artificial manure and a good mulching in the winter. *Strawberries* have this year been excellent, and the following varieties are grown: *Laxton*, *Waterloo*, *Late Prolific*, *Royal Sovereign*, and *Dr. Hogg*. Some 500 of the *Royal Sovereign* are used for forcing in pots. The *Strawberry* beds are renewed every three years, and no doubt this has a lot to do with the success achieved.

In this part of the garden there is a very healthy stock of the best *Chrysanthemums* and *pot Roses*, there being about 650 pots of the former and 200 of the latter. There are in the garden some fine beds of vegetables.

Mr. Kelf's name is well known in the gardening world through the exhibits he has shown at the meetings of the Royal Horticultural Society for a number of years past, and also at the Royal Botanic shows, &c., and the fact that he has gained a great number of gold and silver medals must have impressed visitors at these shows with his skill as a gardener under adverse climatic conditions. It is interesting to note here that at the Royal Horticultural Society's exhibition at Vincent Square, Westminster, on the 15th ult., Mr. Kelf's exhibit of *Grapes*, *Peaches*, *Pears*, *Figs*, *Melons*, &c. (a really magnificent collection), secured the much-coveted Hogg Memorial medal. He is a member of the committee of the United Horticultural Benefit and Provident Society, and always endeavours to show the good work of this society to those with whom he comes in contact.

The glass houses mentioned in this article are all fitted with up-to-date appliances, and are heated throughout with 4-inch pipes there being some 1,700 feet of piping, and three large saddle boilers.

F. S. C.

STOVE & GREENHOUSE.

THE COLEUS.

AT this season the brilliant and varied hues of the *Coleus* are repaying for the months of cultivation bestowed on the plants. According to the treatment they have received so is the display they now make. They will go on improving for a few weeks yet, and then the flower-buds will be showing thickly. These must be pinched out as soon as detected; the flower must be regarded as a blemish; it detracts from the splendour of the leaf, and is in itself unattractive and insignificant. The pots may have occasional doses of weak liquid manure, and about three times a fortnight. Rank feeding tends to gross poorly-coloured growth, but pot-bound plants need sufficient nourishment to keep the older leaves from dying off.

From the end of August cuttings may be put in for next season. They root freely at this time in almost any soil; loam or leaf mould, or a mixture of both, with sand in any case, will do. Cuttings taken with three joints, and the lowest pair of leaves on each cut off, inserted in pots or pans filled with the compost may be placed in a house or frame which does not require much air and has a moist atmosphere, with *Cucumbers* or *Melons* for instance. Pot off, before the roots become entangled, into 4-inch pots, and when they have recovered the slight check of potting place them in a sunny position near the glass in a more airy house. As they attain to a height of 6 inches or so pinch out the points, and when the weather gets colder (in October) shift them to a heated house. The *Coleus* cannot bear cold, though in summer it likes plenty of air day and night from June to September. A later batch of cuttings may be put in before throwing away the old plants, but they will require heat to root them, a hand-light in a warm house is advisable. Great care is necessary as to watering and temperature during the winter months to avoid losses, and turn out strong plants for repotting in spring. The night temperature ought to be as near 60° as possible, though an occasional lapse even as low as 40° does not necessarily kill the plants, if watering is properly attended to.

In February or March, according to conditions of temperature at command, another batch of cuttings should be struck in leaf-mould, or loam and leaf-mould and sand. The pots or pans should be put in a hand-light in the best heat obtainable; afterwards they are to be potted off as before. These cuttings are got off the tops of the older batches. Soon after this the autumn-struck plants will require a shift into sixes and sevens. A few of the best may be selected and grown on in heat, to fill eventually 10-inch or 12-inch pots. They make a magnificent show. In May a general potting in loam, leaf-mould, and a little manure, with some sand, disposes finally of the lot, pots ranging from sixes to nines, exclusive of the large specimen plants. At this time a few cuttings stuck in anywhere will soon be available for 4-inch and 5-inch pots to furnish the front of the stage. So now we have a stage of plants graduated in size, and a collection of well-grown *Coleus* of good varieties is worth much trouble. To form compact, well-shaped plants, pinching is necessary through all the growing

season. Afterwards pinching out the flower-buds is sufficient. A few good varieties, giving a wide range of colour, are, dark: Royal Robe, Beckwith's Gem, Pine-apple Beauty; light: Queen Alexandra, Countess of Dudley, and Golden Gem. These are taken at random, and are six good ones; many others are not inferior. W. McDERMOTT.

Roebuck Castle, Dundrum, Dublin.

A BEAUTIFUL CACTUS (PHYLLO-CACTUS LATIFRONS).

THIS is not a difficult plant to manage, as it grows luxuriantly if planted out in a well-drained border where it can get the benefit of plenty of light. It is a good subject for covering a wall or partition in a greenhouse, and if kept moderately dry at the roots during winter will seldom fail to produce flowers freely in April and May. It is a rapid grower, producing shoots 3 feet or 4 feet long in one season, and will soon fill its allotted space, after then it will require thinning each year after flowering to keep it in its place. The flowers are white, tinged with pink on the outside of the tube, there being sometimes a dozen or fifteen flowers open at one time.

E. J. ALLARD.

Botanic Gardens, Cambridge.

ROMAN HYACINTHS.

It is a mistake to suppose that because the Roman Hyacinth naturally flowers early that the bulbs require only to be potted up and then placed in the frame or greenhouse to obtain a wealth of bloom by or before Christmas. No bulb is capable of doing this. The great secret in obtaining early flowers is to secure the bulbs and pot them as soon as possible, afterwards plunging them in sand, ashes, or, what is better, cocoanut fibre for several weeks. In this position they soon form a mass of roots, and these should always be in advance of top growth. Very little warmth is then necessary to induce the flower-spikes to appear. Hard forcing and few roots are the chief reason for failure in bulb culture under glass. No bulb should be given a forcing temperature until the pot or vessel containing the bulbs is practically crowded with roots. R. P.

CYPRIPEDIUM FAIRIEANUM.

THE rediscovery of this Orchid by a Government collector in Bhotan has already been recorded. The first plants to arrive in England were received at Kew from the Calcutta Botanic Gardens about three months ago, and the accompanying photograph represents one of these plants in flower at Kew. So far the plants have grown well in a tropical house, but it remains to be proved whether tropical, intermediate, or cool treatment will be most suitable for this species. Its habitat is said to be the valley of the Torsa or Amuchu River in Bhotan, but the precise altitude has not been made known, and this is important. At first it was reported that the plant was limited to a small area, and that all that could be found had been secured. Messrs. F. Sander and Sons have, however, obtained several consignments of plants, apparently newly collected, and they have already disposed of some of them to fanciers, among whom the breeders of hybrid Orchids show the keenest interest in *C. fairieanum*. W. W.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

NICOTIANA SANDERÆ.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In THE GARDEN of the 19th ult., two of your correspondents—J. Higgins and "W. R."—have given their opinions of the above. It is evident that neither of your correspondents is enamoured with it. I differ very much from their

opinions, for with me it is splendid. I have two beds of it, and not one plant has inferior flowers either in colour or size. There are several shades. I enclose a few blooms for your inspection. Most of them, you will observe, are as large as *N. affinis*, which I also enclose for comparison. Now I would ask, Why is it that some have good and others apparently bad results? Is it in the cultivation or the position, or what is it? I am inclined to think that position has a very great deal to do with it. In my opinion the best position for it is in beds fully exposed to the sun. When thus massed the effect is beautiful. To obtain good plants for bedding the seed should be sown early in February, and, when large enough to handle, the seedlings should be pricked off into boxes, at about 6 inches apart, hardened off, and planted out at the end of May.

C. H. SNOOK.

Shanklin, I. W.

[The flowers sent were exceptionally fine, and the colour a deep glowing crimson. We should be glad to know why the plants apparently differ so much in various gardens. It is probably due to variation in the seedlings.—ED.]

ECONOMICAL STRAWBERRY CULTURE.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Numerous controversies have occasionally taken place as to the length of time over which a Strawberry bed will remain profitable, but without anything definite being arrived at. After all, it is largely a question of situation and treatment, and whether a bed lasts a season longer or shorter is not a matter of much moment, the most important thing being to establish beds quickly and get the most from them before the natural vigour of the plants begins to decline. As a

matter of fact, sentiment must play no part in Strawberry culture if the best results are to be obtained. It is quite natural for one to have a friendly regard for an old Apple tree, through which there is a reluctance to cut it down, even though it may have ceased to be profitable, but none of this spirit must be shown towards Strawberries, and as soon as a plant has lost its natural vigour and its fruiting capacities have declined, the sooner it is buried a foot beneath the surface of the ground the better.

In the ordinary course of events, then, it is obvious that old Strawberry beds have to be done away with, and it is equally obvious that, in order to keep up the supply of fruit, new plantations have to be formed, and it is in this



THE RARE LADY'S SLIPPER (CYPRIPEDIUM FAIRIEANUM) IN FLOWER AT KEW.

operation that a good deal of waste in time and ground may often be observed. In many cases people cling to the old-established Strawberry bed too long, and, when at last it becomes imperative that something must be done, they choose a slow, roundabout, leisurely way of doing it. Having marked the site of the new bed, the rooted runners are obtained haphazard from the old plants some time during the winter or early spring, and, when a favourable moment comes, planting is done. Frequently a good many of the plants succumb through frost, others through damp, and the remainder spend the whole of the season following planting in establishing themselves. This I contend is a waste of time which may be avoided by adopting a better method of propagation.

In any establishment where Strawberries are grown in pots for forcing there never need be any difficulty in establishing beds for outdoor fruiting, because there is no better method than that of putting out plants that have been forced once. After the fruiting is over, the plants should be removed to a cool house or frame and be looked after until they can be safely put out of doors. In the meantime a piece of ground should be prepared by manuring and deep digging, and the plants can be turned out of their pots and put in any time during the summer. These plants being well established, and having time to settle themselves in their new quarters, will bear a full crop of fruit the first season after planting. It may be urged that they do not last so long as plants raised from fresh runners, but that does not matter, as it is easy enough to provide for succession by making a new bed every season.

I am aware, however, that every would-be grower does not force Strawberries, and the next best method is to work on lines similar to those which would be adopted if forcing was the idea—that is to say, a number of small pots should be filled with soil in July and the newly-formed runners should be pegged on to the surface. When these are rooted they may be severed from the parent plant and transplanted. A suitable site is one from which an early vegetable crop has been taken, and if planting is done in August or as early as possible in September there is every chance of the Strawberries becoming established before the winter, and if a full crop is not picked the next summer there will be sufficient fine fruit to repay for all the time and trouble expended.

But even if this opportunity has been allowed to pass there is still a chance left. Young, well-rooted runners may be forked up from the beds in early September, and if transplanted at once with good balls of soil they will get established during the present season and make strong, healthy plants if the weather during the autumn keeps open. Indeed, this is a far better plan for establishing a new Strawberry bed than leaving

the runners till next February or March before they are removed. All these methods are a saving of time, because I contend that the aim of any Strawberry grower should be to get sufficient fruit the first season to pay for picking, and what is lacking in quantity from young plants is more than made up in the size and quality of the berries.

I have one other word to add—Strawberries need no coddling; all they ask is for fair treatment. If planted after a crop of vegetables the ground should be manured and dug deeply. After that the soil should be trodden fairly firm and the plants put in with the crowns level with the surface. This is important, because if the crowns are below the ground-line they are liable to rot, and if above they often suffer through drought; but if planted as advised not later than September the roots quickly get hold, the plants are not lifted out by winter frosts, strong early growth sets in the following spring, and in the summer the grower has the satisfaction of picking his first crop of fine fruit. As a matter of fact the results prove the truth of the old proverb that if a thing is worth doing at all it is worth doing well. H.

BAMBOOS FLOWERING.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—With reference to the correspondence upon the subject of the flowering of the Bamboos in this country this year, I may say that *Phyllostachys* (*Bambusa*) *Henonis* is flowering in my garden here this season. S. ARNOTT.

Sunnymead, Maxwelltown, Dumfries.

ACETYLENE GAS REFUSE.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—The enclosed information, taken from the *Lyttelton Times*, regarding the use of acetylene gas refuse may be of some value to your readers. "For many years it has been impossible to grow Peaches successfully in the Taranaki district owing to the peculiar disease known to orchardists

as Peach curl—the leaves curling around the fruit when the fruit is forming, causing it to wither away and fall off. An old Plains fruit grower tells the *Waimate Witness* that the refuse from the tanks of acetylene gas generators is a cure for the disease or blight. The refuse is put on the soil around the base of the tree. He has seen it tried on Peach trees in various stages of 'dying out,' and in every instance the treatment has resuscitated the tree and removed the disease."

Christchurch, New Zealand.

P. G. KEIG.

TREE FERNS IN NEW ZEALAND.

NEW ZEALAND is sometimes styled "the land of Fern," and when we despatched our contingents of Volunteers to assist in upholding the honour of our Empire in South Africa, it was a Fern leaf that was selected as their badge. Certainly Ferns of many and varied forms find a congenial home in those islands from the Bracken (*Pteris aquilina* var. *esculenta*) which clothes many a hillside with a russet robe, and which formerly furnished part of the food supply of the Maori, to the stately Tree Ferns of several species which are to be met with usually in the gullies and glades of the bush or natural forest. I say usually, for in this part of the Colony they were seldom met with in the open, though sometimes the fronds of *Dicksonia squarrosa* might be seen rising amongst the scrubby fringe of some tract of bush. In the interior of the forests, chiefly in the gullies, *D. antarctica*, as well as *D. squarrosa* and *Hemitelia Smithii*, were pretty generally distributed, their brown stems often completely hidden by a curtain of Filmy Ferns (*Hymenophyllum* many species, and *Trichomanes*), while the Silver Tree Fern (*Cyathea dealbata*) was more often to be found on the drier forest-covered ridges near the coast. This Fern derives its English name from the fact that the under sides of the fronds are whitened as with frosted silver, and it is perhaps the most beautiful of all our Tree Ferns.

The other species of the genus (*C. medullaris*) is not found in the eastern portion of Otago, though it occurs in Stewart Island and in the sounds or fiords of the West Coast. To see this Fern in perfection the northern part of this island, or the North Island, must be visited, and nowhere can it be seen to such advantage as on the banks of the Wanganui River, which flows into Cook's Straits towards the western side of the North Island, and as I recently paid a visit to this lovely river, it may interest some of your readers if I recount a little of what I saw.

The accompanying photographs may convey some faint idea of this glorious Tree Fern in its native wilds; but they fail to convey an adequate one of the size and beauty of the *Cyathea medullaris*.



TREE FERNS IN NEW ZEALAND BY RIVER BANK. (Note size of the Ferns as compared with man in the canoe.)

It was early in April when we started from the thriving town of Wanganui by steamer to proceed up the river. Signs of autumn were to be seen amongst the Wanganui gardens; *Cosmos bipinnatus* was in full flower, often growing in rank luxuriance 5 feet or 6 feet high. *Amaryllis Belladonna* was past its best, the pale beauty of the freshly-opened flowers having been replaced by the somewhat dirty red of the fading blossoms. The walls of a few of the houses were brightened by masses of the purple bracts of the *Bougainvillea*—but it is not of gardens I purpose writing. For some ten or more miles above the town the country is open and dotted with homesteads, but afterwards the river enters the hills, and its beauties begin. Everywhere the river is fringed with Willows, mostly an erect-growing species, but intermingled here and there with the weeping variety (*Salix babylonica*). The former had donned their autumn hues, and relieved with a touch of yellow the prevailing greenery; but the latter were still as green as at midsummer.

A special interest attaches to the Weeping Willow in New Zealand, as they are all said to be descended from slips brought by some French settlers from Napoleon's grave at St. Helena, in the olden days when sailing ships touched there. This Willow margin to the bush-clad hills seems almost incongruous, yet it is by no means an unpleasing feature in the landscape, and it owes its existence to the fact that the early missionaries some sixty years ago planted Willows at their settlements, and casually broken boughs have been carried by floods and other agencies, so that the Willow fringe is almost unbroken, except where the cliffs rise sheer from the water.

The missionaries also introduced fruit trees, of which the Peach did well for many years; but after a time they became unhealthy and the fruit dwindled in size, and the Peach has now all but died out. The only other missionary introduction which seems to hold its own is the Quince, for at every native settlement on the banks and many a place between were to be seen thriving trees laden with golden fruit. A trace of the missionary influence is also to be met with in the names of the villages, such as Hiruharama (Jerusalem), Koriniti (Corinth), Atene (Athens), and others. But I am taking a long time to get to my text, so I shall not attempt to describe the scenery further than to say that the river is closely hemmed in by bush-clad hills of varied outline, rising for the most part but a few hundred feet, though occasionally attaining an altitude of 1,500 feet or 2,000 feet.

The trees composing the bush are mostly light, in some parts little more than shrubs, with occasional taller trees rising over the lowlier growth. The shades of green vary from the greyish green of the feathery-foliaged Kowhai (*Sophora tetraptera*) to the deep green of the Rata (*Metrosideros robusta*), or the yet darker foliage of the Rimu (*Dacrydium cupressinum*), or some other Pine. In some parts the taller trees were almost entirely Tawas (*Beilschmiedia tawa*), the timber of which is largely used for making the packages in which our butter is shipped to England. The fastigate growth of the Rewa Rewa or Honeysuckle (*Knightia excelsa*) was often seen rising above its more umbrageous neighbours. It must be glorious sailing up the river when the Kowhai trees

are hung with their golden flowers, or when the occasional splashes of crimson-scarlet, all but hiding the foliage of some large Rata in full bloom, stand out from their setting of green. Neither of these trees was in flower unfortunately, but the "thousand jacket," one of our Ribbon-woods (*Hoheria populnea*), ever and anon, held aloft its branches covered with white blossoms.

All along our way grew innumerable Tree Ferns, sometimes singly, sometimes in small groups, and again in large fields of an acre or two in extent, but always spreading their giant fronds above the surrounding vegetation. A hillside covered with these splendid Ferns is a lovely sight to look upon. Under all conditions they look well, whether looking down on a great bank of their magnificent crowns with their huge fronds bathed in the sunlight, or looking upwards in the waning light of evening at some hillside clothed with them, when the black stems seem to stand out with a more intense blackness.

Dunedin, New Zealand. A. BATHGATE.

(To be continued.)

TREES AND SHRUBS.

CUPRESSUS LAWSONIANA STEWARTI.

IT is interesting to see how greatly this beautiful and distinct golden conifer is superseding the older green form. In neighbourhoods similar to the one in which I live, where the prevailing colour of the many miles of Pine woods and Heather is a sombre green both in summer and winter, I know of nothing more useful for the brightening up of the landscape than this hardy shrub, raised a few years ago by Mr. Stewart of Ferndown Nurseries, near Wimborne. Its habit is in every way similar to its parent, but time is yet required to test the limits of its height. When once established the foliage is an intense golden yellow, making it conspicuous for both winter and summer effect. I have seen it growing in many varieties of soils, but the best colour seems to be obtained when peat



THE TREE FERN (*CYATHEA MEDULLARIS*) IN NEW ZEALAND.

and leaf-mould have been freely mixed with good loam.

GEORGE BURROWS.

CRABS AS LAWN TREES.

At the present moment a glorious feature on the Rev. W. Wilks' lawn at Shirley Vicarage is a huge mass of *Rhus Cretina* in brilliant colour. Very soon exceedingly beautiful objects will be good standard trees, heavily laden with fruit, of the Crab Apples Dartmouth and John Downie. While these trees are masses of beauty when in the spring covered with pink bloom, they are glorious in colour when the fruits on them are ripe. How many who have lawns, on which are growing very commonplace, uninteresting, and far from beautiful trees, would gladly exchange their rubbish for a few good ones of these brilliant-coloured Crabs. The fruits, apart from their decorative effects, are nice bottled or otherwise preserved. Other than Crabs, such Apples as Duchess Favourite, Baumann's Red Reinette, Gascoyne's Scarlet, and some others make very effective lawn trees.

A. DEAN.

ACER PENNSYLVANICUM.

(*A. STRIATUM*.)

THIS is a native of the Eastern United States, and forms a small tree 20 feet to 30 feet in height in its native habitat, though in this country it does not attain much more than half that height. It has been much neglected in ornamental planting, though for winter effect it is one of the best of the smaller trees. It usually forms a short stem a few feet in height, dividing into six or

seven secondary upright branches in the head. The main trunk and branches are beautifully striped with white lines on a green and black bark, while the young wood and buds are of a bright red, rendering the common name of Snake-barked Maple a most appropriate one for this plant. In winter the effect is very pleasing, especially if five or six are planted close together to give a larger and bolder effect. The heart-shaped leaves are about 9 inches long by 6 inches or more broad, usually three-lobed, glabrous when old, but hairy on both surfaces in a young state, and finely serrated. The flowers are greenish, and borne in pendulous racemes about 6 inches in length. They are followed by winged fruits about an inch long, which give the tree a picturesque appearance during the summer months. The tree is easily grown, thriving well almost anywhere, though the colours are better when it is grown on moderately dry ground. It is easily raised from seed.

J. CLARK.

Bagshot, Surrey.

THE FLOWER GARDEN.

THE DUTCHMAN'S PIPE. (ARISTOLOCHIA SIPHO.)

VERY few members of this somewhat extensive family are what may be called popular garden plants. Most of them require a warm temperature, and perhaps the most remarkable member of the family is *A. gigas* var. *Sturtevanti*, with its gigantic flowers of extraordinary form. Of the hardy species with woody stems *A. Siphon* is one of the best known in gardens. It has been in cultivation since the year 1763, and is well adapted for growing on trellis work or clambering over old tree-stumps, the stems often attaining to a length of 30 feet or more. The leaves are dark green and cordate in shape, as well as of good size, from which is derived the other common name, "broad-leaved Birthwort," under which it is known. The yellowish brown flowers are not conspicuous, being almost hidden by the leaves, but are of curious form, resembling to a certain extent the large pipes generally used by the Dutch. It is an interesting plant, and well worth growing for its foliage, as also for its singular flowers, which are produced in May and June. It is a native of North America, from which country also comes the similar *A. tomentosa*, with leaves which are downy beneath, and yellow flowers having a dark purple centre. While these are the only two hardy climbing members of the genus generally grown, the herbaceous perennials belonging to this family are represented by *A. Clematitis*, which grows about 2 feet high, with similar leaves and small yellow flowers. It is a spreading plant, and has become naturalised in many parts of this country.

W. IRVING.

NOTES ON MAY TULIPS.

BULB catalogues have come from various quarters to remind us that it is time to think of preparing for the spring of another year. We notice that

each season the May-flowering or "Cottage Garden" Tulips are finding a more prominent position in their pages.

An atmosphere of romance surrounds these magnificent old-fashioned flowers, so highly prized a century ago, and then, with the advent of ribbon gardening, consigned to the rubbish-heaps, or, perhaps, finding refuge in some half-neglected corner or cottage plot, from whence they are now being unearthed and sought out as eagerly as old china. Although these flowers are deservedly becoming more popular each year, it is probable that to a great many people they are still unknown. Besides their great beauty of form and gorgeous colourings, they possess other merits—their culture is of the very simplest, more so even than the better known early Dutch Tulips, for, unlike them, they need not be lifted every season, but may be left in the ground

from my experience of them will be of interest. The best time for planting I find is the last week of October or the first week of November, choosing a fine day when the soil is not too wet and sticky. I plant my bulbs in good soil, the beds having had a slight dressing of manure early in the season for annuals such as Asters. The crop of annuals of course absorbs all the strength of the manure, and leaves the soil in nice condition for the bulbs. Before planting I always mix a considerable quantity of clean river sand with the surface soil, as this makes the bulbs come out of the ground nice and clean and well skinned when lifting them again. I also put a little fine sand round each bulb as it is planted, and with this simple treatment I have always had magnificent results. The proper time to lift the bulbs is when the stems and foliage turn yellow after blooming, or, to be very exact, when you can bend the stem without breaking it. The bulbs should not be dried in the sun, as the sudden change from the cool soil into hot sun is calculated to injure them; they should be spread thinly in shallow trays in a cool airy shed, and when dry they should be cleaned from loose skins and tufts of rootlets, and sorted into sizes, care being always taken not to mix different sorts. For the benefit of those who have not yet grown the May Tulips, I shall describe a few of the best I have tried. Beginning with

Yellow Tulips.—*Bouton D'Or* is a lovely old-fashioned flower; it is a perfectly round, globular bloom, of moderate size, and very rich pure self yellow in colour, becoming almost orange with age, the anthers are velvety black; this variety has the merit of being very cheap. The largest yellow is *Mrs. Moon*, a magnificent and most striking bloom, borne on a tall stiff stem, in colour it is a pure rich yellow self; it is probably one of the largest Tulips in existence. *Leghorn Bonnet* (*Elegans pallida lutea*) is a most exquisite yellow, a very large flower with handsome broad slightly pointed petals of the most beautiful silky texture, and in colour the loveliest pale delicate shining yellow, having a broad band of a slightly buff tone up the centre of each. *Ixioides* is one of the very choicest Tulips, a flower of model form and moderate size, beautiful pure clear canary yellow, with a magnificent dark peacock green base, giving the flower the appearance of a huge *Ixia* when expanded. Probably the most delicately coloured yellow is *Vitellina*, a late variety of the most exquisite pale soft primrose shade, fading to a lovely old ivory tone with age. Foremost among the

Reds is the noble *gesneriana major*, an immense bloom of richest glossy crimson-scarlet, with a dark indigo base, borne on a stem 2½ feet high. When open in the sun it rivals the great Oriental Poppies in splendour, and in the evening the petals fold themselves in the most graceful form. This superb Tulip is one of the cheapest and most plentiful of all, and should be planted in quantity, for it is unsurpassed for producing magnificent effects, particularly on lawns with a background of trees or massed in a shrubby border. *Crimson Globe* is an egg-shaped bloom of most dazzling fiery vermilion, with a dark



THE DUTCHMAN'S PIPE (ARISTOLOCHIA SIPHO) ON A PERGOLA.

(From a photograph sent by Miss Willmott.)

undisturbed for two or three years, and almost any soil will grow them. And, again, they come into bloom at a time when there is a dearth of flowers in the garden—all the earlier spring flowers are over, and the summer ones are not yet in. To those of us who are Daffodil enthusiasts they should be especially welcome, beginning to open as they do just as our last Grandees and *Mrs. Langtrys* are fading; they fill what would otherwise be a sorrowful gap.

I grow a small collection of these lovely flowers, and have tried one or two bulbs each of a good many varieties, so perhaps a few notes

base, and fulgens is an immensely tall crimson variety with apple green stems; it is earlier than most, and very lasting, while macrospila is a very cheap and useful late flowering crimson. A superb sort for effect is Orange Globe, a very large egg-shaped flower, of intense glowing terra cotta, the edges of the petals flushed chrome orange, and having a small dark velvety base; this is certainly one of the finest. La Merveille is also a grand Tulip, very large soft terra cotta, and when closed it takes the most lovely and elegant pitcher shape. There are several Tulips whose colours could only be described as art shades. Some of these are wonderfully beautiful, for instance, Fairy Queen, a very large tall variety, blooms egg-shaped, and forming a perfect goblet when open. On first colouring the flowers are a lovely soft rich apricot buff, very soon the central part of the three outer petals becomes rich warm heliotrope, while the three inner petals are an exquisitely delicate blend of pale gold and cream, and before dying off the whole bloom becomes a soft silvery dove colour. The Fawn is a very choice and quite unique Tulip, which may also be termed an art colour, the broad petals are delicate fawn colour softly edged with white, while the interior of the flower is glistening white with a slight shading of primrose. This is a rare and most beautiful Tulip; it was introduced by Messrs. W. Baylor Hartland and Sons of Cork, who have done much to make these lovely flowers as popular as they deserve to be, introducing, as they have, many of the choicest varieties, such as Leghorn Bonnet, Mrs. Moon, Crimson Globe, Ixioides, Fairy Queen, &c.

Another Tulip which must be mentioned among the art shades is John Ruskin, a huge egg-shaped bloom of a quite indescribably beautiful blend of rich apricot or Indian yellow and peach pink, softly margined with canary, a sort of lovely sunset colour. This variety, however, is still scarce and somewhat expensive. Shandon Belles (syn. Isabella) is a fine old-fashioned Tulip, having very large pointed sugarloaf-shaped blooms, opening creamy yellow with some pink flutings, and soon becoming altogether pink; it is a very strong growing variety; while Picotee is a bloom of exquisite delicacy, having shell-like white petals, with a lovely Picotee edge of rose pink.

Sweet Nancy is a flower of similar colour and lovely satiny texture; it is one of the last to bloom. White varieties are not numerous. Didieri alba is very charming, clear white, with a slight greenish tone on first opening. Snowdon, or Parisian White, is also excellent. It will be seen from those described, and they are only a small proportion, what a great variety of beautiful and gorgeous colouring may be had in these lovely flowers. To see a collection of them expanded in the brilliant sun of a May morning is a sight not soon forgotten. Bulbs of most good standard sorts may now be had of all first-class seedsmen, but I think it much the best, especially where rare and choice varieties are wanted, to get them from a firm who make them a speciality.

County Antrim.

G. L. WILSON.

JOTTINGS ABOUT ROSES.

(Continued from page 161.)

MME. ABEL CHATENAY.—A grand garden Rose of splendid growth, thoroughly hardy, and remarkably floriferous. Both as a dwarf and also as a standard it is a great success; indeed, except for the fact that it is rather addicted to mildew, it would be difficult to

find any fault with it at all. The petals have a peculiar habit of reflexing like those of a Cactus Dahlia, and the flowers, though not large, are of exquisite shape and fragrant. Colour a rich salmon-rose, the reflexed outer petals of a silvery pink shade, recalling those

of La France. Flowers carried on fairly long stalks, not sensitive to wet, and seldom needing disbudding. The plant is naturally a rather tall and

irregular grower, and should not be closely pruned. If all M. Pernet-Ducher had accomplished was to have raised this fine Rose his name would be gratefully remembered by rosarians for many years to come. Raised from Dr. Grill × H.P. Victor Verdier.

Souvenir de Président Carnot.—A splendid Rose for the garden, and a prime favourite with everyone on account of its good growth. I have grouped this variety and Killarney together, and find the result a great success. Buds pointed, expanded flowers globular, borne on stiff stems; colour, rosy flesh, shading at the edges to flesh white; moderately fragrant. A vigorous grower, with fine foliage, seldom becoming mildewed, but sensitive to wet weather. For garden decoration it should be sparingly pruned. A seedling from Lady M. Fitzwilliam and a Tea Rose.

Mme. Cadeau Ramey.—Another Rose of the Antoine Rivoire type, but not nearly so good a grower. A favourite still with exhibitors, and when at its best is most fascinating in colour. Flowers globular, with a high centre, rosy flesh with a yellow base, at times edged with rose. Petals very firm and of lasting character, not easily spoilt by rain. Foliage dark green, very shiny, and quite free from mildew. With me this variety proves so floriferous that it makes but little wood. An undoubted seedling from Lady M. Fitzwilliam, and perhaps out of the same cross as Antoine Rivoire. Wood glaucous with a few red thorns.

ARTHUR GOODWIN.

The Elms, Kidderminster.

(To be continued.)

NEW AND RARE PLANTS.

STENANTHIUM ROBUSTUM.

ON the 29th ult. this new hardy plant was shown before the Royal Horticultural Society by Mr. Amos Perry, Winchmore Hill, N., and then received an award of merit. *Stenanthium* belongs to the natural order Liliaceæ, and the inflorescence shown by Mr. Perry was some 18 inches long, made up of closely-arranged white, fragrant flowers. The genus *Stenanthium* comprises five species of greenhouse or hardy bulbous plants; one is a native of North-west Asia, while the rest are North American.

The three best-known species are *S. angustifolium*, *S. frigidum*, and *S. occidentale*, which are all natives of North America. The genus *Stenanthium* is rarely represented in gardens, but the species are very interesting. The fact that *S. robustum* has obtained an award of merit will draw attention to the genus.

STENANTHIUM ROBUSTUM.

(Shown by Mr. Amos Perry at a meeting of the Royal Horticultural Society on the 29th ult., and given an award of merit.)



GARDENING FOR BEGINNERS.

SIMPLE HINTS.

PREPARING PLANTS FOR LIFTING.—Many winter-flowering plants, such as the Chrysanthemum, Violet, Bouvardia, Solanum, Arum, and others, are planted out and grown in the open during the summer. This saves much labour and generally the plants grow most vigorously, and by autumn the roots if left unchecked will have travelled a considerable distance from the plants. It would be impossible to lift the whole of these intact with a ball of earth to be potted up, and to sever the roots at the time of potting would give the plants such a check that their flowering would be impaired. The present is the time to cut round such plants. Use a sharp, clean spade, and drive this deeply round each plant at a suitable distance, according to its size and the size of pots to be used. A good soaking of water should be given when the soil is fairly dry. Tread the ground firmly round each specimen. This will save a check being given when they are lifted.—R. P.

To Plant Under Trees.—It is fairly well known that the Ivy, Periwinkle, Hypericum, and Euonymus radicans will grow well under the shade of large trees; it is not, however, so generally known that the pretty evergreen Azara microphylla will thrive in this position. This is a very charming shrub, and its small leaves increase in size and become a deeper colour in the shade.

Moisture-loving Trees and Shrubs.—One of the best trees for planting on wet or moist land is the Alder. When once the plants are established, they grow very quickly after being cut down, and soon make fine poles. They must, of course, be protected from the attacks of hares and rabbits, which are fond of nibbling the young and tender growths. After the Alder the most profitable tree for planting in moist land is the Ash. Elm, too, may be grown. The Elm and Ash are sometimes planted at wide intervals, and the Alder between them. Evergreen Oaks, Austrian Pine, Pinus Laricio, and Abies Douglasii might also be used if the land is not very wet.

Tree Carnation Cuttings.—These can be rooted at almost any time of the year if the growths can be had in proper condition. Those made during the summer are much stronger than those made during the winter and spring while the plants are growing less strongly, and consequently will make good plants in less time than weaker growths. It is advisable to root some now. An ordinary garden frame placed on a hot-bed is as good as anything. It must be so arranged that when the frame is on the bed, and the cuttings are put in, the latter must be near the glass, otherwise they

are liable to become weak and spindling. Carefully pick off any decaying leaves. Keep the cuttings close for a few weeks, shade them from the sun, and syringe them lightly morning and afternoon. Give a little air during the hottest part of a sunny day, but in dull weather keep the frame closed.

Storing Seed Potatoes.—The successful cultivation of Potatoes begins with the proper storage of tubers for planting. Neither kidney nor round varieties should be allowed to sprout prematurely, as this has a weakening effect on the growth. The Ashleaf and Lapstone sections particularly should be looked after in this respect; however, they will sprout if they are kept in heaps for a few weeks after they have been lifted. They should be sorted over directly they are lifted, all the medium-sized and best-formed tubers being reserved for planting. Do not leave any

in the open air or on the ground longer than can possibly be avoided, but spread them out thinly on a dry floor. Afterwards they should be packed closely on their smallest ends in shallow boxes, and, except in frosty weather, have light and air.

In a Small Town Garden.—The two accompanying illustrations represent scenes in a small garden some seven miles from Charing Cross. Nothing was planted before the end of March this year, and many of the plants were not put in until April. Yet the results have been all that could be desired, and throughout the summer this little garden has been gay with flowers. The climbing Roses have grown rampantly, and have made good strong shoots that next year should give plenty of blossom. Of these Claire Jacquier has proved most vigorous. One of its growths has passed the top of a 9-foot-high pole; for some time this shoot grew an inch every twelve hours. Climbing Souvenir de la Malmaison, Crimson Rambler, Dorothy Perkins, and Mme. Alfred Carrière have also done remarkably well. Dorothy Perkins has made shoots quite 9 feet long, and together with Rugs and W. A. Richardson has almost covered a rustic fence. Leuchtstern, Williams' Evergreen, Reine Olga, and Aimée Vibert have also grown moderately well. Among the dwarf Roses, Grüss an Teplitz, Viscountess Folkestone, Tom Wood, Hugh Dickson, Grace Darling, Mme. Jules Grolez, Frau Karl Druschki, Gustave Régis, Mrs. Dickson, Mrs. John Laing, Duke of Edinburgh, Marie Finger, La France, Exquisite, and Gladys Harkness have been the most satisfactory of those I have. The surface of the Rose border was planted with the following Pansies: Kitty Bell, Jackdaw, Blue Gown, The Mearns, Isolde, and Cream King. The first-named has proved the best, and throughout the summer the plants have been a mass of bloom. The first illustration shows a carpeting of this pretty lavender-coloured Viola. Clematis Jackmani is to be seen on the first pole, while Roses Claire Jacquier and Mme. Alfred Carrière cover the other. On the low trellis is Dorothy Perkins Rose. In this garden

The Lilies are now at their best. Liliun speciosum Melpomene, L. s. Kretzeri, L. tigrinum, L. callosum, and L. auratum are in their full beauty, and together with some Violettas beneath make a picture of some beauty. The second illustration shows a small group of Campanula trachelium, one of the best plants in the garden. I planted, in April, four or five small plants, and they quickly spread, forming a close tuft of greenery, which in July and throughout August was quite covered with the pale blue flowers. This is, indeed, a plant for the beginner and for the small town garden. To the right hand



A CORNER OF A TOWN GARDEN.

(Showing the growth of Roses and Clematis planted in April last. The Pansy covering the border surface is Kitty Bell.)

of the Campanula is shown a mass of that splendid Lobelia Mrs. Clibran; it made a brilliant bit of colour throughout the summer months. Carnations and Pinks I grew with fair success, and have secured layers of the best of the former. Mrs. Nicholson (rose) I found to be the most free-flowering. Of

Good Border Plants

I have German Irises, Forget-me-nots, Campanula persicifolia, C. pyramidalis, Doronicums, Lupins, Geum coccineum, Gaillardia grandiflora, Helenium pumilum, Monarda didyma, Hyacinthus candicans, Liliums croceum and umbellatum, small-flowered Sun-flowers, Golden Rod, Japanese Anemones, scarlet Lobelia, Gladioli, Phloxes, and others. I made use of annuals in some quantity, and I had brilliant masses of Candytuft in various colours, the red Flax (*Linum grandiflorum rubrum*), *Lavatera trimestris*, Marigolds, Lupins, Nasturtiums, and others. Sweet Peas I grew largely, both in the border and in tubs. I had twelve of the latter planted with Sweet Peas and placed on one side of the garden path; they made a grand display, and were invaluable for cutting, thus giving cut flowers without despoiling the beauty of the border. The double white *Arabis* is a plant I must not forget to mention. Two quite small plants put in in the spring are now large tufts. This plant may be propagated most easily. Bits pulled off and placed in the soil in a shaded part of the garden take root quite easily.—T.

Covering Bare Places Under Trees.—Ivy is often used for this purpose. Our own native Ivy from the woods answers very well, and there are small-leaved, close-growing Ivies. Among the named varieties *Hedera purpurea* does well, and gives a little more variety in colour. Golden Cloud is stronger in growth; the gold tint in spring and early summer is charming. These small-leaved, close-growing Ivies do not require much training, and if the ground is well prepared at first very little attention will be required afterwards. In looking round Kew the other day I noticed a very free use is being made of the dwarf variegated *Euonymus radicans variegatus* for this purpose, and very neat covering it makes, giving little or no trouble afterwards. This *Euonymus* is a very useful plant; it will cover a wall 20 feet high, and always looks neat and dressy, or it may be used for covering under trees, as at Kew, and it makes one of the neatest hardy edging plants for flower-beds, and it is easily propagated by division or from cuttings of the young shoots under glass. Another useful plant for covering bare places may be had by planting the creeping *Hypericum calycinum*, one of the St. John's Worts. This plant produces rather large yellow flowers freely in summer, and if at any time it gets untidy it may be trimmed off with the shears and it will break up again from the bottom, though this will not be required very often. There are other plants which may be used for covering bare shady places. The small-leaved Periwinkles are very suitable, and hardy Ferns are often planted in shady places, though the drip from trees is not good for them. Some of the strongest species, however, will succeed. I am thinking now of the heavy-foliaged



CAMPANULA TURBINATA IN A TOWN GARDEN.

trees. Where the shade is less dense there are many things that will be a success, especially among the evergreen Barberries and Hollies and the male and female Aucubas.

GARDENING OF THE WEEK.

FLOWER GARDEN.

ASSUMING that by this time all cuttings of Pelargoniums (Geraniums) and most soft-wooded bedding plants have been put in, attention should be given to propagating a good number of

PENTSTEMONS and a few choice Antirrhinums. Choose cuttings from the base of the plants. They are generally plentiful at this season, and are much the best. These do well inserted in light soil in a cool pit or frame, shaded from bright sun and kept fairly close by placing lights over them until "callused," but once rooting has commenced expose them fully during favourable weather, and only protect when heavy rains, snow, or frost prevail. Treated in this way they will be sturdy and well rooted by the spring, and in perfect order for transplanting more thinly into other pits or sheltered borders. Pinch out the points to induce sturdy growth and prepare generally for occupying their flowering quarters. Although practically hardy here and in many other places, still it is risky to trust cuttings of them in the open unprotected through the winter.

CALCEOLARIAS propagate best at this season, and treated on similar lines to the above throughout will also turn out well.

GOLDEN THYME, *Santolina*, Phloxes of the alpine species, and those that are utilised for edgings and carpetings, should also be increased by cuttings, for young plants winter better and are more amenable for transplanting and trimming than older stock. Select a position for these sheltered from north-easterly winds, and insert the cuttings—firm, fairly ripened growths—thickly in rows, filling up the drills around them with light sandy material, treading it well in as the work proceeds. No further attention will be needed through the winter except to examine occasionally in case some are thrown out by frost and to keep free of weeds. Where used as edgings, and the ground is now vacant, they may be put in their permanent lines to root, thus saving replanting during the busy spring season.

ROSES ON THEIR OWN ROOTS.—Many rampant Ramblers and vigorous Hybrid Perpetual Roses and others are often more satisfactory on their own roots than on a foreign stock, and a fair percentage of cuttings will strike root if inserted in the open at the present time. A sheltered and shady position should be chosen in preference to one of full exposure to sun and drying winds. For cuttings select firm, medium-sized shoots. Those that have flowered are usually good material for the purpose. Take them off with a heel where possible, trim a few leaves at the base, and cut off the unripe points, leaving the cuttings from 9 inches to 1 foot in length. Having all ready and labelled, take a sharp, bright spade and cut open a drill 8 inches or 9 inches deep, lay the cuttings along the firm, smooth side left by the spade, two-thirds of their length to lie in the soil, and fill up the drill with sandy material, making the

cuttings quite firm by treading about them, and see they remain so during the winter. Before severe weather sets in mulch between the rows with spent Mushroom-bed manure, spent moss litter, or rough, partly-decayed leaves for protection. Thus treated, most should be well-rooted plants by the following autumn. Teas, Hybrid Teas, and some weak growers should be inserted in pots, kept cool until "callused," and then placed on slight bottom-heat to hasten the formation of roots. Cuttings of these may be shorter than those put in the open. Look over

TUBEROUS BEGONIAS while they are in full bloom, marking those to be discarded and those to be specially reserved for producing seed another year, and go over the general stock on a dry day to pick the ripe seed-pods off those it is desired to increase and perpetuate. Of course, they do not come absolutely true from seed, but it is by such selecting that it is possible to keep up or improve a favourite strain. Most of the fibrous section come fairly true from seed, hence

it is worth while saving some seeds off one's own plants, for they are more satisfactory when raised from seeds than cuttings, although they are very easily propagated by the latter means, and are then less trouble than seedlings.

The Gardens, Tan-y-bwlch, North Wales. J. ROBERTS.

ORCHIDS.

ODONTOGLOSSUMS.—In Orchid collections of the present day there are nearly always a fairly representative number of varieties of this genus to be found, especially plants of the popular *O. crispum* and its many beautiful and distinct varieties, to which may be added *O. ruckerianum*, *O. andersonianum*, *O. Hallii*, *O. triumphans*, *O. Pescatorei*, *O. polyxanthum*, *O. luteo-purpureum*, *O. sceptrum*, *O. harryanum*, &c., also a few of the well-known hybrids, as *O. wilckeanum*, *O. Rolfeae*, *O. crispo-harryanum*, *O. excellens*, *O. ardentissimum*, *O. Adrians*, *O. loochristense*, *O. lawrenceanum*, *O. wattianum*, and many others too numerous to mention. At different seasons of the year there are always some of these Orchids that require attention as to repotting, &c., but for the majority of them there is no better time than the present for performing any operation on these cool Orchids when their roots have to be disturbed. One important point—as mentioned in my calendar on *Masdevallias*—is that the outside air during this month and that of October is generally of so genial a nature, which is in every way favourable to the quick recuperation of the plants before winter. Where a large collection is grown some of the plants will be in bloom through a considerable portion of the year, and it invariably happens that, either through having made late growth or from other causes, many of them are not in a suitable condition for repotting when the majority receive attention in this way; therefore the potting season is to some extent almost continuous. Those plants which flowered early in the year are now making considerable progress with their new growths, and any that require repotting or resurfacing should be attended to at once. Avoid using pots that are out of proportion to the size of the plants, as overpotting generally ends in injury and failure. The great mass of soil very often gets very wet and remains stagnant for some time, the result of which is that the pseudo-bulbs and leaves become diseased and spotted. When repotting the bulk of the plants, some of them will be found in an unsatisfactory condition and to possess but few roots. These should be turned out of their pots, the decayed roots cut off, and the plants thoroughly cleaned; then repot them into as small pots as they will conveniently go. The pots used should be clean and dry, and they should be drained to about one-fourth of their depth with well-dried Fern rhizome or clean crocks. I prefer the former, over which a thin layer of moss should be placed, so as to prevent the drainage from being clogged.

A **SUITABLE COMPOST** for these *Odontoglossums* consists of freshly-gathered sphagnum moss and fibrous peat in about equal proportions, mixing it altogether in a rough state; then, with a pair of shears, cut it up, but not too fine. A little leaf-soil may be added, according to the discretion of the cultivator, also a moderate amount of small broken crocks and coarse silver sand. Pot each plant with moderate firmness, keeping the base of the young growths just below or on a level with the rim of the pot. When the operation is finished, prick in a few heads of living sphagnum moss over the surface, as growing moss is conducive to the general health of the plants. When repotting the plants it is not necessary or advisable to allow more than two or three pseudo-bulbs to remain behind the young growth. The old bulbs that are removed may then be hung up in the potting shed or any other cool

place, and, if allowed to become dry for a few weeks, many of them will start to grow, when they may be placed into small pots and be treated as is generally recommended for imported plants. Where it is desirable to increase the stock of any particular variety, the plant should not be disturbed by repotting unless absolutely necessary. Even then the less the roots are disturbed the better. If a plant has, say, four old bulbs, the rhizome may be severed between the second and third bulbs, leaving two on the leading growth and two behind. Generally these back bulbs will produce a new growth, and when young roots appear from the base the plant may be carefully removed and potted separately. For a few weeks after repotting it is advisable to water the plant very sparingly, giving just sufficient to maintain life in the sphagnum moss. When watering, go carefully over the plants and sprinkle the surface of those only which are dry. Syringe well between the pots morning and evening, and admit as much fresh air as possible, especially when the external temperature is about 60°. It is important that the ventilation should be very carefully attended to, as the new growths, now growing freely, instead of sending up broad, healthy leaves are apt to grow very narrow and unduly lengthened, and scarcely able to bear their own weight. No artificial warmth will be required until the weather becomes colder and the temperature likely to fall below 50°. Shade these Odontoglossums from all strong sunshine.

Burford Gardens, Dorking.

W. H. WHITE.

INDOOR GARDEN.

VIOLETS.—Frames used for Cucumbers during summer are often used for Violets during the winter. These being available, preparations can be made for lifting and planting those intended to flower early. Well water the plants the day before they are to be lifted, and add a little leaf-soil and road sand to freshen up the soil in which the Cucumbers have been growing. Failing this, use a compost of three parts loam, one of leaf-mould and well-decayed manure, and plenty of sand. The frame should slope to the south, more especially if there are no hot water pipes to keep down the damp in winter. Remove all runners and dead leaves and lift the plants with a good ball. The single varieties require more room than the doubles, and must be planted farther apart. Place the larger plants at the back of the frame and keep near the glass. Water well after planting and ventilate freely. During mild days the lights can be removed altogether. Excellent flowers are obtainable if movable frames are placed over the plants where they have been growing during the summer.

BEGONIAS.—Give the Gloire de Lorraine varieties plenty of room as they are now growing freely. If not already done, place a neat stake in the centre of each plant, tie several of the middle growths to it, and loop up the others to it neatly with raffia. Give a little weak manure water, and shade from the sun. Some of the B. coccinea and B. President Carnot in pots in the conservatory are beginning to look shabby. Remove to one of the reserve houses, and give them a period of rest by partially withholding water.

GENERAL REMARKS.—Stand the Fuchsias going out of flower in the open air, and gradually reduce the supply of water. Put in a few cuttings of each variety of Coleus for stock. Generals showing signs of going to rest can be placed on a shelf in an airy house. Sow seeds of Lobelia tenuior and Rehmannia angulata, placing the pans in a cool house. Caladiums may be stored under the stage in a house the temperature of which is about 60° Fahr. after the leaves have all dried off. After lifting and potting the Bouvardias, Richardias, and Solanums, stand them in a cool moist house or pit, shading them from the sun till established. Keep the atmosphere close for a few days or they will flag if the weather is bright. Use the syringe several times a day.

HOUSING PLANTS.—The houses and frames for the reception of the plants which have stood outside during the summer should be thoroughly cleansed before bringing in the plants. Push forward any painting there is to be done. Staking, tying, and cleansing of the plants can be done better outside than is possible later on in the houses. Scrub all the pots and see that the drainage is clear. Plenty of work will be found to keep the conservatory neat and tidy at the present time. Remove plants looking at all shabby, replacing with good plants, even if they will not be in flower for a few weeks, rather than keep rubbishy plants in the house.

Royal Botanic Gardens, Kew.

A. OSBORN.

KITCHEN GARDEN.

LIFTING POTATOES.—This has been a wonderful season for Potatoes. In spite of the dry weather since they appeared above ground their progress has been uninterrupted from start to finish. Here the crop has been abundant and the quality excellent, but, unfortunately, the deadly disease which has successfully defied Potato growers so long has made its appearance. Curious to relate, its ravages are most evident on a piece of ground where Potatoes were grown for many years in succession. I thought that after the ground had been allowed five years' rest from Potatoes it would be quite safe to try them again. Such, however, has not been the case, for disease appeared about fourteen days sooner on this old Potato ground than on another part of the garden which had been cropped in rotation. What was more remarkable was that the seed of this early diseased plot came from Perthshire, and was about ten days later in being planted, all receiving precisely the same treatment. If Potatoes are ripe the sooner lifting begins the better, keeping separate those showing no marks of disease, and doing the best that can be done with those already affected. Let the haulm be cleared off at once to the rubbish heap to be burned, so that as

much of the disease germ may be got rid of as possible. Subsequently the ground may be occupied with late green stuff, such as Kale and Coleworts that were pricked out some time ago or thinned out in the seed beds. These can still be planted out. Some of the plants are now rather large, but if transplanted on a dull day, with plenty of soil adhering to their roots, and well watered afterwards, little or no check will be received.

TURNIPS now want thinning to about 9 inches from plant to plant, clearing away the thinnings and the weeds at the same time. Then go carefully over the intervening ground between the rows and the plants with the Dutch hoe. The young Turnip plants will be greatly benefited if this operation can be performed once or twice weekly when the ground and weather will permit.

LEeks AND CELERY are now growing rapidly, and demand attention in the way of removing weeds and blanching. Before this is done, however, make sure that they are thoroughly moist at the roots. The appearance of the ground is sometimes misleading, as it looks sufficiently moist, but on examining the earth a few inches below the surface it may be found quite dry. Work the Dutch hoe rather deeply between the rows of Leeks to loosen the soil a little, then draw it carefully up to the necks of the plants, repeating the operation as the plants grow. This done frequently is preferable to drawing a great quantity of soil up to their necks at once, for in that case some of the soil is apt to get into the centres of the plants and damage them. In moulding up the Celery plants let the soil be broken up finely early in the day with the spade, and mould up the Celery in the afternoon when both plants and soil are thoroughly dry. Before this process is performed with late batches give the plants a good soaking of liquid manure, not forgetting to give the whole crop a good dusting of soot on a calm, showery day. Failing liquid manure or soot, guano makes an excellent stimulant for all root crops, Leeks and Celery not excepted.

J. JEFFREY.

The Gardens, St. Mary's Isle, Kirkcudbright.

FRUIT GARDEN.

PINE-APPLES.—Greater care will now be needed in the general management of the plants. With the shortening days and less sunshine there should be a corresponding reduction of moisture, both at the root and in the atmosphere. Except for those which are swelling their fruit and those which have been recently potted, the plants should be gradually induced to make less growth. Those which were potted last month will need attention with regard to watering. Sufficient must be given to soak the soil right through. Discontinue overhead syringing except on very bright mornings, but the atmosphere must be kept moist by damping between the plants and the walls and floor of the house. The earliest Queens should be induced to rest by gradually reducing the temperature of the house. The fermenting material should also be on the decline. Keep the atmosphere less charged with moisture. Admit air freely during favourable weather, but avoid cold draughts. The winter fruiterers should have very liberal treatment in order to encourage the fruits to throw up well above the foliage, so that they will have full benefit of the light and sunshine. Plenty of stimulants may be given in the way of guano water and diluted liquid manure alternately. Discontinue syringing and keep the atmosphere dry while the plants are flowering. Suckers may yet be potted if wanted. They should not be left too long on the plants, or they will become drawn and useless. Plunge them in a moderately warm bed, and keep them in a close and moist atmosphere, where they will quickly root. Shading should now be discontinued except for recently-potted plants.

VINES.—Young planted out Vines having made their growth, attention should be directed to the ripening of the wood, or there may be a big percentage of dormant buds next season. The front ventilators should never be quite closed now, and should there be any suspicion of green wood keep the hot-water pipes slightly heated. The laterals may now be allowed free extension. Succession Vines must be encouraged to ripen their wood so that they may be in fit condition for pruning at the proper time. All growth should be kept in check, and if the foliage should be at all crowded the wood may be shortened a little so that light and air may have free play. Vines which have matured heavy crops of fruit should receive one or two good soakings with diluted farmyard drainings before they lose their foliage. Some condemn this practice, but there is no doubt that if the roots are plentiful and the borders in a healthy condition the Vines are greatly benefited. Vines which have given unsatisfactory results should be renovated as advised for early Vines in a previous calendar.

E. HARRISS.

Fruit Department, Royal Gardens, Windsor.

BOOKS.

British Trees.*—The second part of this work, which is to be completed in thirty fortnightly numbers, describes the Beech and Blackthorn, and the frontispiece is from the artist's picture in the Royal Academy, 1899, called "The Sweet-scented Woodlands." There are numerous illustrations of Beech twigs, flower, mast, and leaves, and the text is interesting. The notes on

* "British Trees." Drawn and described by Rex Vicat Cole, R.B.A.

the Blackthorn are prefaced by a charming sketch of a drift of the white blossom in a rough hedgerow, and, as in the case of the Beech, there are many descriptive illustrations of various parts of the shrub. This promises to be a very beautiful work, and when completed will make a handsome and instructive volume. Part IV. deals with the Sycamore, and the illustrations are excellent. The parts are 1s. each, and the publishers are Messrs. Hutchinson and Co.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, W.C. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

Legal Points.—We are prepared to answer questions of law which have anything to do with the subject of gardening and forestry. The questions should be as clear and explicit as possible, so that there can be no doubt as to the point of the question. Answers will be found in a separate column headed "Legal Points."

TOMATOES (J. C.).—These may be kept for three months. We have kept them for some weeks spread thinly on a shelf in a very dry cool house. If possible, place the fruit on a raised rack so that the fruits are not moist in any way—one layer of fruit. Pick before they are full ripe. Keep the house or room at 45° to 50°, and the fruits should be covered over with a layer of tissue paper and frequently turned or examined.

CHIVES (M. K. B.).—These should not be left too long in one place; indeed, the best method is to divide the roots every season, pulling to pieces early in the spring and replanting in good soil. If this is done you will always have a good lot of young fresh plants of the best quality. The plants like a rich soil and do well in an open position. In dry seasons they will repay liberal supplies of weak liquid manure. You had now better leave the plants till February or March, and then do as advised.

TRELLIS-WORK FOR CLIMBERS (Trellis).—We are quite in agreement with you that a diamond wood trellis-work, painted green, would have a much pleasanter effect when fixed against the wall of a house for training climbing plants than would a wire trellis; but we think that a mesh of 5 inches square would have a more pleasing effect than one of 8 inches; but this is only a matter of taste. The trellis when fixed should have an inch of space left between it and the wall, in order to give proper facility for tying the branches of the climbers to the trellis as they extend, as if fixed close to the wall the act of tying would be difficult and tedious.

CODLIN MOTH (J. G. Cromwell).—The Apple you sent has been attacked by the caterpillar of the Codlin moth (*Carpocapsa pomonella*), a very common pest. The moth is a smallish one, measuring about three-quarters of an inch across the wings when they are open. They are of a greyish colour with brownish lines and patches. The female lays her eggs, one, or perhaps two, at a time, near the eye of an Apple. As soon as the caterpillar is hatched it makes its way into the core of the fruit, where it feeds on the pips and the flesh round the core until it is full grown, when it eats its way out of the Apple and lets itself down to the ground by a silk thread;

or, if the fruit has already fallen, which is perhaps more often the case than not, it simply crawls out. The insect then seeks some kind of shelter, hiding under rubbish or crawling to some stem, up which it makes its way until it finds a suitable place for its winter quarters. Large numbers of these caterpillars may be caught by tying bands of sacking, canvas, &c., or even hay bands, tightly round the stems of the trees, as they provide good shelter for the caterpillars which are crawling up the stems. The strips of canvas, &c., should be long enough to overlap about an inch or so, and should be about 10 inches wide. They must be folded lengthwise, and then again, so as to make a band of four thicknesses. It should be tied with the edge where the folds are uppermost. These bands should be put into position early in the summer, and should be examined from time to time, and any caterpillars found in the folds destroyed. During the winter the trees should be sprayed with a caustic alkali wash to kill any caterpillars which might be hiding in the bark. This should be done some time between the fall of the leaf and any signs of the opening of the buds. In the spring immediately the blossoms have fallen the young fruit should be sprayed with Paris green (Blundell's paste) in the proportion of 1oz. to twelve gallons of water, and add 3oz. of fresh lime. This mixture should be kept well stirred, as the Paris green is very heavy. All windfalls should be picked up as soon as they fall, as they most likely contain one of these caterpillars. In orchards it is useful to turn in sheep, poultry, or pigs, as they will generally eat the Apples as fast as they fall. When Apples have been collected into heaps for Cider making, the ground on which the latter have lain should afterwards be given a good dressing of gas lime.

GARDEN FENCE AND BORDERS (*Private*).—The only Rose likely to be of service for the fence is Aimée Vibert, a white-flowered kind, very free in flower and in growth. In the shady borders marked A you could grow Spiræas, Phloxes, Michaelmas Daisies, many Flag Irises, Lily of the Valley, Lenten Roses, &c. In the border marked B you may grow Hepaticas, Christmas Roses, Gaillardias, Pyrethrums, Tufted Pansies, tuberous Begonias for the summer, also Asters, Stocks, Zinnias, and other annuals. In border C the Japanese Anemones, Flag Irises, Sunflowers, Aster acris, A. amellus, Pæonies, Rudbeckias, &c. Unfortunately, you have not given the size of any of the borders, and the plants suggested may not be suitable or even the best. Nor do we know whether you desire the bedding plants of summer or some good perennials for planting permanently. If you think well to give us more particulars we shall be in a position to amend or readjust the list of plants now given.

GRUBS ON FRUIT TREES (*A. Pepper*).—The insects attacking the leaves of your fruit trees are the grubs of the Cherry or Plum sawfly (*Eriocampa limacina*). They are commonly known by the name of slug worms, though they are neither slugs nor worms. When the grubs have attained their full growth they drop to the ground, bury themselves some 2 inches or 3 inches below the surface, and, having each formed a papery cocoon round itself, become chrysalides, in which condition they remain until the following spring, when the sawflies emerge. The most certain way of destroying this insect is by removing, in the course of the winter, the surface soil to the depth of 3 inches, and burning or baking it so as to kill the chrysalides, or, if you have the opportunity, spread it out where poultry or other birds can scratch it over and pick out the insects. If this operation is properly carried out you should not be troubled by this insect next year, unless some of the flies visit you from a neighbour's garden. If there are trees near you which are attacked in the same way get their owners to treat them in the manner just recommended. If everyone would do this, this pest would soon be exterminated. To destroy

the grubs spray the leaves with Paris green. Blundell's is the best; 1oz. should be added to twelve gallons of water. It must be kept very well mixed, as the Paris green is very heavy and soon sinks to the bottom. This mixture should be applied in as fine a spray as possible, and the leaves should not be wetted so that they drip.

PAINTING HOT-WATER PIPES (*G. T.*).—Brunswick black, if applied to the hot-water pipes, will not hurt plants or fruit, but must not be laid on when the pipes are hot. We would much prefer to use ordinary black oil paint, as it will last much longer, look better, and be more satisfactory in every way. The pipes should be moderately warm when the paint is applied, and the house freely ventilated until the paint is dry and the smell gone away.

TENNIS LAWN (*L. E. H.*).—We think the better course to adopt in the circumstances, seeing the body of soil and turf above the gravel subsoil is so thin, will be to improve the present surface soil, and in this way strengthen the rooting base of the present herbage. You may do it in this way. Secure some good loamy soil, and having broken it up finely with the back of a fork, pass it through a sieve of three-quarters of an inch mesh. Add to the loam an equal amount of short, well-decayed stable manure, and treat it similarly. To every four barrowfuls of the above add one peck of basic slag, and thoroughly mix the whole. When ready apply a good dressing of the mixture to the lawn, spreading it as uniformly as possible over the entire area. When this is done take a long birch besom and brush the soil well into the roots. And if any bare patches are revealed add more of the soil as above. It will not matter if the grasses are nearly hidden from view by the soil thus applied, as one or two sweepings and a few heavy showers will presently put things right. If you apply this dressing early the grasses will gain a good deal of strength by February, when if any bare patches remain apply basic slag at the rate of one peck per rod. Frequent rolling will also be beneficial, and will materially assist to consolidate the freshly-applied soil dressing with the old surface.

PAVED GARDEN (*R. T.*).—How this may best be made, and of what materials, depends not a little upon the place and its environment. If an old-time work aspect is desired, we know of no better stone than forest stone, i.e., the old paving stone which for years has been laid elsewhere and worn at edge and so forth. By arranging such stones almost close together, and with soil inter-cepting the joints, it is possible to cultivate many plants. The stones we refer to are the ordinary paving stones, and these would require to be well laid on mortar, or cement and mortar, to keep them in position. In the joints you could grow **Erinus alpinus* and albus, **Linaria alpina*, small tufts of *Aubrietias*, *Campanula muralis*, *C. pumila*, *C. p. alba*, **Armerias*, **Corydalis lutea*, mossy *Saxifragas*, **Dianthus*, Golden Thyme at any outer margin, *Thymus lanuginosa*, **Myosotis rupicola*, and the like. Those marked thus * come freely from seeds, and by first filling the crevice with soil and sprinkling the seeds thinly a good result will be secured at small cost. The plants named are of small, even minute, growth, and generally of spreading habit.

VEGETABLE MARROWS (*M. A. B.*).—Many persons who grow Vegetable Marrows are often too good to them. We fear from the appearance of the leaf sent that your plants are rather badly attacked with mildew. You do not say what position they occupy. You appear to have given them the proper treatment at the start; but are they much crowded or under trees or in the shade? Mildew also occurs when the plants get very dry at the roots and much water is given. It is far better to water regularly, thin out gross growth, and stop the points or ends of shoots running too freely. This induces a fruitful growth. In our case we cut the fruits daily and

stop regularly all gross wood. The fruits are cut very small. If a few are left to get large, the others higher up the shoot do not swell. To get rid of the mildew now either dust the plants with fine flowers of sulphur or syringe over with a thick sulphur solution. Do not water overhead for a time. You may have fed too liberally. Have you given artificial food? If so, that would account for gross growth and few fruits, as they drop or turn yellow. This is what we mean by being too good to them.

POTATOES (*M. A. V.*).—You do not say when you planted your Potatoes; probably late. If so, the heat and drought and want of moisture have affected the growth of the tubers. Your soil may be light, as this would make matters worse. Another point often overlooked in some parts of the country is that on May 22 there was severe frost, which cut them badly. The Beans also would rob the Potatoes of moisture. We should think the cause of the haulms dying early was drought. It is best to manure in winter for this crop, not at planting time.

ARTIFICIAL MANURE (*M. A. B.*).—Unless we know the kind of soil, its composition, depth, and other particulars, we are unable to say if the artificial manure would be beneficial, but there is no doubt that it would be a helpful adjunct. Used in showery weather it is excellent for growing crops.

TOMATOES AND CUCUMBERS (*S. D. W.*).—The Tomatoes sent have been attacked by a disease which is commonly called spot, and we do not know of any remedy with fruits at the stage yours are except to remove all diseased ones and dose the plants with Bordeaux Mixture or a strong solution of sulphur to thoroughly cleanse all wood and brickwork when the plants are removed. Clear out old soil and get plants or seed from a new and clean source next season. Your Cucumber foliage sent is badly infested with thrips and red spider. The former is the worst, and this has caused the foliage to spot and with hot sun to scorch in places. You note your leaves are large and healthy, but you give us no facts as regards culture. We fear from a close inspection of the foliage the houses have been at some date too dry. Insufficient moisture with dry heat will breed both insects named, and keeping the houses very hot and suddenly admitting cold air on a hot day, or too free use of ventilators in dull weather, would cause injury. The plant should never lack moisture in any way, root or atmospheric. The remedy is to maintain a close atmosphere, syringe the plants several times daily, and thus get new growth. Crop very lightly for a time, and syringe your plants well, wetting the under side of the foliage with an insecticide, such as weak Tobacco water or Quassia Extract. We have also used a weak solution of sulphur twice a week for red spider.

VARIOUS QUESTIONS (*R. W. A.*).—(1) The Rose and Honeysuckle would succeed well together and form a delightful and fragrant arch of flowers. The Crimson Rambler Rose and early Dutch Honeysuckle would be the best varieties. (2) Some varieties of Apples bear much quicker than others, but, speaking generally, if the trees have been worked on Paradise stock you should get a moderate crop the second year after planting, and afterwards, in good seasons, increased crops every year. (3) We do not know of a hardy plant, either annual or otherwise, which bears a perfectly black flower. The blackest are to be found amongst Dahlias, especially the Pompon varieties; among the Salpiglossis are also to be found flowers of shades of black. The Salpiglossis is called the Orchid of the annuals; it should be sown at the end of March. Dahlias cannot be depended on to come true from seed, so that plants would have to be procured. The best time to plant them is the end of May. Some of the Scabious also come very dark. These may be sown out of doors now. (4) *Coleus* will not stand any frost, but if

you can keep up a temperature of 40° to 45° during the winter they will succeed fairly well. Any nurseryman advertising in our columns will supply them. (5) Geranium cuttings will be benefited by sprinkling them overhead on the evening of warm days, but the soil round them must not be made wet at this stage. They must be kept on the dry side during winter, but the soil should not be allowed to become dust dry.

HOLES IN PEACH LEAVES (*G. W. Gardener*).—The holes in your Peach leaves are caused by one of the Shot Hole fungi (*Cercospora circumscissa*). When the leaves fall collect them all and burn them. Removal of the surface soil in the course of the winter would be beneficial in preventing an attack of the fungus next year. As to the colour of the leaves, is it not caused by poorness of soil or perhaps by drought?—*G. S. S.*

RED SPIDER ON APPLE TREE (*S.*).—The leaves of your Apple tree have been badly attacked by red spider. There were none alive on the leaves, but there were any number of their empty skins. I should collect and burn all the leaves as they fall, and in the course of the winter and before the buds show any signs of opening I should spray the tree with a caustic alkali wash. The Rose leaves are attacked by a fungus, the Rose black blotch fungus (*Actinonema rose*). Burn all the affected leaves, and as soon as the buds open in the spring spray with the following mixture: Dissolve 1 lb. of sulphate of copper in 4 gallons of water, and stir it well. When all is dissolved add 1½ pints of strong ammonia, and before using add 20 gallons of water.—*G. S. S.*

TULIPS (*A. E. G.*).—Yes, it is true that Tulips may be carefully lifted from the flowering beds shortly after flowering and laid in the reserve garden to complete their ripening. Not all spring-flowering bulbs may be so treated, however, and among those that endure it with impunity we may mention tuberous-rooted Anemones and Ranunculi. It is not safe to practice it upon the Daffodil or Hyacinth, that is to say, these will not endure it in the same degree, though it is to some extent adopted for convenience.

PHLOXES AND ASTERS (*A. E. G.*).—In some soils and localities Asters, Phloxes, and early-flowering Chrysanthemums may be transplanted from the reserve garden to the flower border quite well, but in the case of the two first-named groups some preparation would be necessary, and in any case we do not consider that the Phloxes, which flower in July, would recover sufficiently to be presentable. Rudbeckia Newmanni, hybrid Pentstemons, and the Sunflowers of the *H. multiflorus* section could also be lifted in the same way. If, however, a good and presentable display of blossoms were essential, we should prefer to grow the requisite plants in the reserve garden plunged in large pots rather than take the risk. There is not much risk attending the lifting and replanting of the Michaelmas Daisy Asters or the dwarf Chinese Asters if a good soaking of water be given before and after the work is done.

OLD PEACH TREES (*E. H.*).—We think that your want of success in obtaining better results is to be found in the narrowness of your border, which you say is only 6 feet wide. We should dig a trench 3 feet deep and 12 feet distant from the stems of the trees, and 6 feet beyond the extent of the present border. You may possibly come across a good many roots even at this distance. If you do, you must cut them off, not with the spade, but with a knife. Afterwards, you should gradually and carefully work away the soil with a fork to the depth of 3 feet from among the roots until you come within about 4 feet of the stems of the trees. The roots then must be carefully preserved, and before they are again placed in the new soil they should be carefully looked over, and any long fibreless ones shortened back to 4 feet or 5 feet from the tree. The old soil forked out from among the roots of the trees should be wheeled away and replaced

with fresh, and extended for about 5 feet. The new soil should consist of one cartload of turfy loam, to which should be added one barrow-load of quicklime, two barrow-loads of old mortar rubble and broken bricks, and half a bag of ½ inch bones. The work should be done in October. You might again extend the border in three or four years' time. The drainage of the border must, of course, be ample. If you must grow flowers on the border, the surface soil within 5 feet of the stems of the trees should be moved away every autumn to the depth of 5 inches as soon as the flowers are over, and replaced by fresh. If you do not care to go to the expense and labour this work would entail, some improvement, no doubt, would be effected by taking away the surface soil as far as the roots extend, and replacing it by a top-dressing of about 6 inches deep of the same soil as previously recommended.

PACKING THIN-SKINNED GRAPES (*Norman*).—This is a hard matter to accomplish, if not impossible. We have been accustomed for many years to pack thin-skinned Grapes, such as Black Hamburg, for transit to the Scottish moors during the grouse and deer-stalking season with success—and this is over a distance of 500 or 600 miles—by adopting the following method of packing. But by post, of course, the difficulties are much greater, as a parcel of ripe fruit is treated in the same unceremonious way as a parcel of hardware would be! Have boxes made of ½-inch white deal boards, 6 inches deep, 7 inches wide, and about 15 inches long. This will hold six or seven moderate-sized bunches of Grapes. Secure some wood wool material, not too coarse, line the bottom of the box a quarter of an inch deep when hard pressed, and the sides and ends the same. Lay over this a sheet of tissue paper, leaving a margin to fall over the outside of the box large enough to fold over the fruit when the box is full. Place the box on end, at an angle, say, of 50°, and proceed to pack the bunches in it one at a time on the top of one another until the box is quite full. Each bunch must be carefully wrapped in tissue paper before being placed in the box. In building up the bunches care must be taken to press them close together, and to fill up any interstices with wood wool. Fill up all surface depressions with the packing material, so that when the lid is placed on this material will be gently pressed on the fruit, making it perfectly secure against being displaced with any ordinary handling. Be careful to have a distinctly-written or printed card attached, indicating the nature of contents.

PEAR LEAVES DISEASED (*G. H. U.*).—Your Pear tree is suffering from a severe attack of gall mites (*Phytoptus Pyri*). The blisters caused by these tiny mites in the leaves you sent are so numerous that the surface of some of them is nearly all covered. In some cases every leaf on a tree may be more or less injured, and many of them destroyed, so that the trees are much weakened. The insects shelter themselves in the buds in winter, thus perpetuating the attack for years unless they are exterminated. The winter season is the best time to do this, when the trees are bare and dormant. The best insecticide to use for their destruction is Gishurst's Compound made into a lather by mixing in hot water according to instructions given with it, and washing the tree carefully, taking care, of course, not to injure the buds by too hard brushing. For the present the only thing you can do to help the tree is to pull off the worst of the leaves and burn them, giving the tree a good soaking of water, and apply a surface mulch of manure about 2 inches thick over the surface as far as you think the roots extend, and syringe night and morning on warm days. Some adverse conditions of growth to which trees are subjected are nearly always responsible for attacks of this kind, and the most fertile of all is that of over-cropping, weakening the tree, and making it an easy prey to this and other insects or diseases. Knight's

Monarch, in our experience, is a heavy cropper, and more liable to this trouble than other sorts which bear less freely, and therefore to keep the tree in a healthy condition early thinning of the fruit should be resorted to. Usually the tree will do this itself later on, but the mischief is wrought then. Far better is it to pull off the smallest fruit as soon as they are large enough to enable the grower to see which are the best, and to leave these only on the tree. Dryness at the root is also responsible. A good plan is to irrigate such trees heavily during winter. By attention to mulching and occasional watering in summer, and timely thinning of the fruit, you ought to be exempt from this trouble in future.

HELIOTROPE DISEASED (*Heliotrope*).—We are inclined to think that insects of some kind are the cause of the trouble. Slugs seldom touch Heliotrope, but there are many kinds of caterpillars, and some of them are adepts at hiding, so that it is possible you have overlooked them. If searching by day is fruitless, a look round at night by the light of a candle will probably reveal the authors of the mischief. The skeletonising of the leaf certainly suggests the work of caterpillars, of which a very limited number will soon do considerable damage.

DISEASED PEACH LEAVES (*J. H.*).—The Peach leaves sent show numerous brown spots quite small, and in some of the leaves these spots have left quite tiny perforations. These lead to the conclusion that the disease in them is what has been for the reason just given become known as the shot-hole fungus. What creates it no one can say, although suggestions are plentiful. Probably the primary cause is the tree roots have got into poor soil, perhaps gone too deep, and it may be if the tree were in October carefully lifted, then replanted after any deep running roots had been cut back, adding to the soil some good fresh loam, wood ashes, and old mortar refuse, with a little bone-meal, that the future shoots and leaves will be quite healthy. If the tree and the entire house were sprayed with caustic soda and pearlash solution, 1 lb. of each dissolved in twenty gallons of water, then sprayed on hot after all leaves had fallen and been collected and burnt, great good also might result.

CROQUET LAWN TO BE FORMED (*C. J. E.*).—The best way to have this work satisfactorily carried out will be to entrust it to some competent gardener or nurseryman in your neighbourhood. Once properly formed it will last a lifetime; on the other hand, if badly formed it is always a source of trouble and annoyance to play on. The cost should not be a serious matter. If good turf is available at a moderate price, we should prefer to lay it down with turf, and the best time to do this is the end of September or beginning of October. The lawn by doing this would be in good enough condition to play on next summer, if well attended to in the way of top-dressing, rolling, and mowing in spring. Should you decide to lay the lawn down with seed, the best time to sow the seed will be the first week in April, but the lawn cannot be played on until the following year.

PEACH AND NECTARINE DISEASED (*W.*).—Seeing that the Peach and Nectarine trees are young and vigorous, and that they were replanted last autumn, no fault can very well be found with the roots or the border. All stone fruits delight in lime, and should your soil be deficient in this ingredient the failure may be partly attributable to this, in which case you should rectify this defect by adding a liberal dressing in the autumn and watering it in. If the roots of all the trees affected have been subjected to a constant dripping of water from the Strawberries for a considerable time, this is altogether inimical to good culture, and should not be repeated. The fruit was bad when it arrived, so that we could not examine it. If you can send other fruits and a few of the leaves affected we shall do our best to be of further service to you.

NAMES OF FRUIT.—*Reader*.—The Apple is Worcester Pearmain.—*T. L.*—The striped Apple is Duchess of Oldenburg; the crimson Apple is American Mother.—*W. S.*—The Apple is Old Hawthornden. The Cherry Apple is also known as the Scarlet Siberian Crab.—*A. Tittall*, Putney Hill.—1, New Hawthornden; 2, Warner's King; 3, Dunelov's Seedling; 4, Keswick Codlin Improved; 5, Brown Beurré; 6, Beurré Diel.—*C. J. Wilson*.—1, Mank's Codlin; 2, New Hawthornden; 3, Boston Russet; 4, Lemon Pippin; 5, Sugarloaf; 6, Wealthy; 7, Old Hawthornden; 8, Allen's Everlasting; 9, Tower of Glamis.—*Inquirer*.—Lord Nelson.

NAMES OF PLANTS.—*R. Keeling*.—*Lagerstromia indica*.—*Mrs. Graham*.—*Incarvillea Oigae*.—*W. R. Spencer*.—1, *Guelder Rose* (*Viburnum Opulus*); 2, *Lysimachia vulgaris*.—*Denham*.—Unfortunately, the flowers were withered so much that it was impossible to name them.—*H. R. S.*—We believe the foliage sent to be that of *Rosa Banksia fortuneana*. It is an exceedingly shy blooming Rose in its early life, but when well established you should obtain a fair amount of blossom. This variety, however, will never blossom so profusely as the common white or yellow Banksian. Spread out its shoots as much as possible, and train them fan-shape if you can, also cut away some growths in order to give the others a better opportunity for ripening.—*Shamrock*.—1, *Sequoia gigantea*; 2, *Snowberry* (*Symphoricarpos racemosus*); 3, *Saxifraga Andrewsii*; 4, *Oxalis corniculata*; 5, *Dactylis glomerata variegata*.—*Bridget*.—1, *Mentha sylvestris* (Horse-mint); 2, *M. hirsuta*; 3, *Teucrium Scordocidia* (Wood Sage); 4, *Gallium Mollugo* (Lady's Bedstraw, G. vernum is yellow); 5, *Thalictrum minus*; 6, *Clematis Flammula*.—*T. L.*—1, *Begonia metallica*; 2, *B. margaritacea*; 3, *Panicum plicatum*; 4, *Thalictrum minus*; 5, *Cyperus alternifolius*; 6, *Chlorophytum elatum variegatum*; 7, *Hieracium aurantiacum*.—*H. Roberts*.—*Lælia crispa*.—*I. C. W.*—*Salvia patens*.

SHORT REPLIES.—*H. T.*—Specimens such as you send are by no means uncommon, for the Fern-leaved Beech in the first instance originated as a sport from the common kind, and there is always a greater or lesser tendency to revert to the ordinary form.—*S. T.*—If you will let us know the species and varieties of trees you are interested in, and wish to raise from seed, we shall be happy to help you. We may say that, generally speaking, in order to secure successful germination, it is a safe plan to follow the example of Nature in the matter of sowing seed. We know that the moment the seed is ripe on a tree it is then cast off and sown in a natural way broadcast on the ground. The same rule should be followed in the garden as near as possible. Let the season of the year be when it may that the seed is ripe, then is the time to sow the seed. As regards the seeds of hardy trees, these are usually ripe in autumn, and should be sown out of doors in drills in fairly light, well-drained soil. The depth of the drills must be regulated by the size of the seed, the smaller the seed the shallower the drill. However, when we know your requirements we shall be glad to give you more specific information.—*A. K. M.*—If you do not require the frame it would be better for the rooted cuttings if they were removed to new quarters about April of next year. When the soil becomes warmed by the sun, little plants of this description transplant much more safely. The Crimson Rambler rooted cuttings could be potted up at the end of October as they are required for making pot plants, but greater success and more beautiful trusses of blossom are produced from two year old plants that have become bushy owing to the pinching back or pruning they obtained the first year. Therefore if you plant out next spring the rooted cuttings of Crimson Rambler, cutting them back to three or four eyes at the time of planting, you would have some nice stocky plants to pot up in October, 1906.—*Lehrling*.—The correct name of your plant is *Aracaria excelsa glauca*. If one of the branches is drooping so as to spoil the symmetrical character of the specimen, it may in all probability be secured in its place by fastening to a piece of stiff iron wire, which from its rigidity need not be very thick, and consequently will be but little seen. Still, the fact of the branch drooping would indicate that the plant is in poor health, unless it has received a blow and partially broken off the branch at its junction with the main stem. If this is the cause, the branch being held in its place by the wire will soon recover from its injury; but if the drooping is caused by a bad condition of the roots, you must repot the plant, using a mixture of loam, peat, and sand. Do not use a pot larger than is necessary, but take care that it is clean and well drained. While the soil must not be allowed to get dry, over watering should be especially guarded against, and this is particularly necessary till the roots are again in active operation.—*S. T.*—Our correspondent asks the question: Is it a fact that seedlings from, say, Apple Pippins would bear only a kind of wild Crab? No one can ever tell what the result in sorts may be from a sowing of Apple Pippins. Probably as many sorts as there were pips would follow. By a bare chance an improved new variety of Apple might result in this way, but the chances are a hundred to one against it, and the probabilities are that the Crab element would predominate, as all cultivated fruits, if left to themselves, have a strong and unerring tendency to revert back to the original, and the original of the Apple is the Crab.—*Amaryliss*.—The *Amaryliss* goes to rest in the winter, and it is quite natural for the leaves to begin to die off at this season. During the winter it should be kept quite dry in a temperature of 45° to 55°, then about the end of January it must be watered, at first but little. This will lead to the production of leaves, and in all probability the flower-spike will then make its appearance. During the latter half of the summer it should be in a spot fully exposed to the sun in order to ripen the bulb thoroughly, as this greatly assists in the formation of flower-buds.—*Campden*

Hill.—After an exhaustive trial of cocoanut refuse and other substances for potting bulbs in we have come to the conclusion that far and away the best rooting medium is ordinary potting compost, say two parts loam to one part each of well-decayed cow manure and leaf-mould, with a good dash of rough sand. Cocoanut refuse contains no fertilising properties; perhaps in this respect Jadoo is its superior, but they both owe their value more as retainers of water than anything else. Large bulbs can be grown in these substances as they can in water pure and simple, but for those named by you, except the very largest bulbous forms of Narcissi, we should advise the potting compost named above. As a material in which to plunge pots in order to keep the soil in an even state of moisture we think very highly of cocoanut refuse, but not to pot plants in. Jadoo is suitable for plants that require a very light soil, which the bulbs named by you certainly do not.—*H. George*.—At the time mentioned by you the Fuchsias in cultivation were limited to a few of the original species with two or three hybrid kinds. Referring to a horticultural journal of the period named, we find that the Fuchsias generally grown consisted of *Fuchsia fulgens*, *globosa*, *gracilis*, *macrostemma*, and *Riccartoni*. Most of these belong to the small-flowered, hardy, or almost hardy, class, quite large bushes of some of them being met with in the favoured parts of these islands, such as in the extreme west of England, parts of Ireland, and in the Isle of Wight. The Mexican *F. fulgens* of a different class, and can, with most of the others, be still obtained from nurseries. The Willow is in the west of England known as the Withy Tree. The "Dictionary of Gardening" gives the Crack Willow (*Salix fragilis*) as the Withy, but in the West the term is applied to Willows in general.—*W. R.*—One of the many forms of *Crococsmia aurea*, which is somewhat variable in size, and in the marking of the flower in the different varieties. The segments of the flower sent are narrower than usual, but this may be accounted for by the withering of the blooms during transit. There are many hybrids between this plant and *Tritonia Pottsi* in cultivation, which are known under the name of *Montbretia crocosmioides*, all very free flowering and effective.

PRIZES FOR GARDENERS. SEPTEMBER.

ESSAY ON WATER GARDENING.

A First Prize of FOUR GUINEAS,
A Second Prize of TWO GUINEAS,
A Third Prize of ONE GUINEA,
And a Fourth Prize of HALF-A-GUINEA
are offered for the best Essays upon "Water Gardening."

The essay must not exceed 1,000 words in length, and should describe the best ways of water gardening and the most beautiful plants to use. Some particulars of the plants should be given as to height, colour of flowers, season of flowering, &c. The essays must be written on one side of the paper only, and must reach the Editor of THE GARDEN, 20, Tavistock Street, Covent Garden, London, not later than the 30th inst. Envelopes must be marked "Competition." The Editor cannot undertake to return the MSS. of unsuccessful competitors.

LEGAL POINTS.

VOLUNTARY SETTLEMENT (*C. H.*).—A voluntary settlement is void if the settlor becomes bankrupt within two years after the date of the settlement, or within ten years unless the parties claiming under the settlement can prove that the settlor was at the time of making the settlement able to pay all his debts without the aid of the property comprised in the settlement.

WORKING HOURS FOR GARDENERS (*Bedford*). The working hours of a jibbing gardener depend upon the arrangement between him and his employer, or, in default of any arrangement, upon the custom of the district. Contracts of this sort are usually determinable at very short notice, so that if either party is dissatisfied he can readily terminate the engagement.

SETTLED LAND ACTS (*S. T.*).—Trustees with a future power of sale are trustees for the purposes of the Settled Land Acts (see Settled Land Act, 1890, sec. 16, sub-sec. II.). A sale under the Acts must be made by the tenant for life, not

by the trustees, but notice must be given to the trustees, and the tenant for life must comply with the other formalities mentioned in the Acts. In a case of this sort you should consult your solicitor. The terms of the settlement will require consideration. The Acts provide that (1) every sale shall be made at the best price reasonably obtainable; (2) the property may be sold privately or by auction; (3) the tenant for life may fix reserve biddings and buy in at an auction; (4) restrictions may be imposed in regard to building on the land or any part of it; (5) the minerals may be reserved; (6) the settled land may be exchanged for other land, and money may be paid or received to make up differences in value; (7) the tenant for life must act as if he was a trustee for the other parties interested.

PREFERENTIAL PAYMENTS IN BANKRUPTCY (*Distressed*).—In the distribution of the property of a bankrupt or of a deceased person who has died insolvent, or of any company being wound up under the Companies' Acts, the following debts have priority: All wages or salary of any clerk or servant in respect of services rendered to the bankrupt or company during four months before the date of the receiving order, or as the case may be, the commencement of the winding-up, not exceeding £50. All wages of any labourer or workman not exceeding £25, whether payable for time or piece work in respect of services rendered to the bankrupt or company during two months before the date of the receiving order or, as the case may be, the commencement of the winding-up. The debts named are to rank equally between themselves and be paid in full unless the assets are insufficient to meet them, in which case they are to abate in equal proportions. There is no need for you to worry.

BARBED WIRE (*Law*).—The Barbed Wire Act, 1893, provides that the local authority may by not less than one month and more than six months' notice in writing to the occupier of any land adjoining a highway upon which there is a fence made with barbed wire (i.e., wire with spikes or jagged projections) which may probably be injurious to persons or animals lawfully using the highway, require such occupier to abate the nuisance caused by such fence. In default, the local authority may obtain an order from a Court of Summary Jurisdiction directing the abatement of the nuisance. If such order is not complied with, the local authority may abate the nuisance at the occupier's expense. You must judge for yourself whether your fence will probably be injurious to persons or animals using the highway.

SOCIETIES.

CARDIFF GARDENERS' ASSOCIATION.

ON Wednesday afternoon, the 6th inst., over fifty members of this association, for the third successive year, took a trip by brakes to Fair Oak Nurseries, Bassaleg, Monmouth, by invitation from Mr. J. Basham. Leaving Cardiff at 2 p.m., a call was made en route to The Gardens, Tredegar Park (the residence of the Right Hon. Lord Tredegar), who had so readily sent to say "Come and welcome." The party were met by Mr. J. Bone, the head gardener. It is a grand, historical place, well timbered. Notably fine were the Tulip Tree, Spanish Chestnut, the Silver-leaved Elm, and the Fern-leaved Beech. Considering the very poor fruit crops in the district generally Mr. Bone has been fortunate. Of Pears and Figs on walls the crops were heavy, as also were the Apples, both pyramids and standards.

On leaving the gardens the party were introduced to Mr. Ferrut (steward to his lordship), who conducted the party to the celebrated cellars and refreshed them with the old Tredegar ale. After thanking the officials for their courtesy and kindness, in company with Mr. Basham (who had previously joined the party at Tredegar Park) a start was made for Bassaleg. Upon reaching there the members were entertained to tea. Afterwards a general survey of the nurseries was taken. In arrangement, style, and cleanliness everything was up to date. Before leaving Councillor Dixon, on behalf of the party, thanked Mr. and Mrs. Basham and family for their hospitality. The brakes started for Cardiff, which was reached at 10 p.m. Before dispersing Councillor Dixon most heartily thanked the hon. secretary, on behalf of the members, for the admirable arrangements made by him in the two outings this season.

NATIONAL DAHLIA SOCIETY.

THE annual exhibition of this society was held at the Crystal Palace on the 7th and 8th inst. An excellent show resulted; competition was especially keen in some of the amateur classes. Many new varieties were shown, and a large number gained the first-class certificate.

NURSERYMEN.

In the class for forty-eight distinct blooms of show Dahlias, Mr. John Walker, Thame, was first with some splendid flowers; second, Mr. Mortimer, Farnham; third, Mr. Charles Turner, Slough. The first prize for twenty-four show blooms, distinct, was won by Mr. G. Humphries, Kingston Langley, Chippenham; second, Mr. W. Treseder, Cardiff; third, Messrs. Cray and Sons, Frome.

For eighteen fancy Dahlia blooms Mr. Walker, Thame, was first, and Mr. Mortimer, Farnham, second. There were no more entries. For twelve blooms of show Dahlias Mr. William Treseder was first, Messrs. Cray and Sons, and Mr. G. Humphries third. Mr. J. R. Tranter, Henley-on-Thames, won the first prize for twelve blooms of show and fancy intermixed.

In the class for eighteen varieties, in bunches of six blooms each, a silver challenge cup, value 10 guineas, was given with the first prize. Messrs. James Stredwick and Son, St. Leonards-on-Sea, were the winners. They had a lovely lot of flowers. This is the third time Messrs. Stredwick have won the cup, so now it becomes their property. Second, Messrs. J. Cheal and Sons, Crawley; third, Messrs. J. Burrell and Co., Cambridge. For twelve bunches of Cactus Dahlias Mr. H. Shoosmith, Westfield, Woking, was first with fine distinct flowers; second, Mr. George Humphries, Kingston Langley; third, Mr. John Walker, Thame.

For forty-eight blooms of Cactus sorts, Messrs. Burrell and Co., Cambridge, won first prize; second, Messrs. Keynes, Williams and Co., Salisbury; third, Mr. G. Humphries. For twenty-four Cactus Dahlia blooms, distinct, Mr. J. Walker, Thame, was first with very fine flowers; second, Mr. Seale, Vine Nurseries, Sevenoaks; third, Mr. S. Mortimer, Farnham. There were six other competitors. Messrs. Burrell and Co., Cambridge, were first for twelve varieties, six blooms of each, in vases.

Mr. Charles Turner, Slough, sent a beautiful lot of Pompon Dahlias, winning the first prize for twenty-four varieties in bunches of ten; second, Messrs. J. Cheal and Sons, Crawley; third, Mr. Seale, Sevenoaks. Mr. J. Walker, Thame, had the best lot of twelve varieties, in bunches. Messrs. J. Cray and Sons being second, and Messrs. J. Burrell and Co. third.

Single Dahlias were finely shown by Messrs. J. Cheal and Sons in their first prize stand of twenty-four varieties in bunches; Mr. Seale, Sevenoaks, was second. Messrs. J. Cray and Sons, Frome, were first for twelve bunches of singles; and Mr. Walker, Thame, second. There were no more competitors in these two classes.

AMATEURS.

The silver challenge cup and first prize for twenty-four show Dahlias were won by Mr. T. Hobbs, The Cedars, Downend, Bristol, with an excellent lot; second, Mr. S. Cooper, Hamlet, Chippenham, Wilts. Mr. E. T. Matthews, 42, Almond Street, Derby, had the best twelve show Dahlias, Mr. T. Jones, Ruabon, being second. This class was keenly contested. For twelve fancy Dahlias, Mr. J. Newman, New Cheltenham, Bristol, was first, and Mr. T. Jones second. For six vases of Cactus Dahlias, Mr. J. Bryant, St. Martin's Terrace, Salisbury, was first, Mr. E. Turner, Sevenoaks, being second.

The silver challenge cup and first prize for nine bunches of Cactus Dahlias were won by Mr. H. Brown, Luton, Beds, with some good blooms. Mr. Lockyer, gardener to Mrs. Twentyman, New Barnet, was first for six vases of Cactus Dahlias.

The gold badge presented by Messrs. Dobbie and Co. for twenty-four Cactus Dahlia blooms, distinct, was won by Mr. J. Bryant, Salisbury. Mr. E. Turner, Sevenoaks, was second in this class. The competition in this class was very keen. For twelve Cactus blooms, distinct, Mr. F. H. McKraith, Lindley, Huddersfield, was first, and Mr. E. T. Matthews, Derby, second.

For twelve bunches of Pompon Dahlias, Mr. H. Brown, Luton, was first. Mr. Brown was also first for six bunches. The first prize for six bunches of singles (ten blooms in each bunch) was won by Mr. J. Newman, New Cheltenham. Mr. W. Hughes, Church Road, Upper Norwood, won for vase of Cactus Dahlias, and Mr. P. Tulloch, Forest Gate, Balcombe, was first for three vases of Cactus varieties.

OPEN CLASSES.

In the open classes Mr. Pagram, Weybridge, was first for vase of Pompon Dahlias; Mr. Emberson, Walthamstow, for basket of Cactus Dahlias; and Mr. William Treseder for bouquet of Dahlias. Mr. S. Mortimer, Farnham, was first for six blooms of one show Dahlia with Perfection; for six blooms of one Cactus variety Messrs. Stredwick won with William Marshall; and Mr. J. Walker, Thame, was first for six varieties of Pompon Cactus sorts.

The non-competitive exhibits were a feature of the show, and some beautiful displays were made by the following firms: Messrs. H. Cannell and Sons, Swanley, Kent; Hobbies, Limited, Dereham; J. T. West, Tower Hill, Brentwood; T. S. Ware, Limited, Feltham; John Peed and Son, West Norwood, S.E.; John E. Knight, Tattenhall Nurseries, Wolverhampton; and A. Li. Gwillim, New Eltham, Kent.

NEW DAHLIAS.

A first-class certificate was awarded to each of the following:—*Pompon*: Midget, rosy fawn (West); Kitty Barrett, light yellow, edged light crimson (West); Matador, dark red (Turner); *Thora*, white with bluish centre (Turner). *Cactus*: Lady Fair, rose and yellow

(Keynes, Williams); *Pink Perfection*, rose with bluish tinge (Mortimer); *Ed. Drury*, rich yellow (Stredwick); *Mrs. F. Grinstead*, crimson-magenta (Grinstead); *Wm. Marshall*, orange-brown, yellow centre (Stredwick); *Iris*, lilac-pink (Stredwick); *Nelson*, crimson (West); *White Lady*, white (Shoosmith); *H. Shoosmith*, rich crimson (Shoosmith); *The Pilot*, apricot with reddish tinge (Hobbs, Limited).

READING FLOWER SHOW.

THE annual summer exhibition was held on the 30th ult. in the Forbury Gardens. The show has long held a reputation for its displays of vegetables especially, thanks mainly to the encouragement given by Messrs. Sutton and Sons, who provide such handsome prizes. Mr. W. Smith is the acting secretary. In the open classes plants were but tolerably well represented. For a group of miscellaneous plants arranged for effect there were only three competitors. Mr. House, gardener to W. R. Routh, Esq., Reading, was first. Fuchsias are always a feature at this show; liberal prizes are offered for six specimens, distinct. Mr. Bright, gardener to J. Friedlander, Esq., White-knight's Park, Reading, was an easy winner of the premier prize with plants 9 feet high. Tuberous Begonias were best shown by Mr. House, who secured the premier award with fringed varieties.

Cut flowers were a bright display. Dahlias were numerous and good. For twenty-four show or fancy, distinct, Mr. John Walker, Thame, secured the leading award. For twelve show or fancy, distinct, Messrs. F. Taylor and Sons, Kingham Nurseries, Chipping Norton, secured the first place. For twelve bunches of single varieties, Messrs. Cheal were easy first prize winners. Cactus varieties were extremely fine. For twelve varieties, three of each, Mr. J. Walker was an easy first. For twelve Pompon varieties, Mr. Walker was first.

Roses were well represented, considering the late date and the recent weather. For eighteen distinct, single trusses, Mr. John Jefferies, Cirencester, won. For twelve distinct, Messrs. F. Taylor and Sons had the best of three sets. *Gladioli* were well shown, Mr. Walker winning for twelve spikes.

For twelve vases of any kind of cut flowers, distinct, Mr. Wasley, gardener to J. B. Taylor, Esq., Sheffield Manor, Basingsoke, was first. In the amateurs' classes four stove and greenhouse plants were best staged by Mr. Wasley. Mr. Wasley had the best four Ferns.

Vegetables in the open classes were handsome. The leading class was for twelve distinct kinds, for which ten guineas were given by Messrs. Sutton and Sons as first prize. Four competed, making an attractive display. Mr. Kneller, gardener to Sir Wyndham Portal, Malshanger Park, Basingsoke, was an easy first; Mr. Dymock, gardener to G. D. Faber, Esq., M.P., Rush Court, Wallingford, was placed second; Mr. W. Pope, gardener to Lord Carnarvon, Highclere Castle, Newbury, third. If these two had reversed positions no one could have found fault with the award, the exhibits being so near in point of merit.

Fruit was especially good in quality in the open classes. For a collection of six distinct dishes Mr. Wasley was easily first. For three bunches of Black Hamburg Grapes, Mr. Howard, gardener to Lady Sutton, Benham Park, Newbury, was first. Mr. A. Galt, gardener to H. Keyser, Esq., Aldermaston, had the best Muscat of Alexandria. For one dish of Peaches there were some remarkable fruit staged. Mr. Booker, gardener to W. B. Monck, Esq., Colery Park, won with Barrington, extremely fine. Seeing the Apples staged here would not give an idea that this fruit is at all scarce this season. For three dishes, dessert, eight entered, Mr. Page winning quite comfortably. Fourteen competed for three dishes of culinary varieties: First, Mr. Kneller. Mr. Wasley had the best three dishes of dessert Pears amongst nine entries.

LLANGOLLEN FLORAL FETE.

FAVOURÉD by beautiful weather, a record entry of exhibitors and an excellent attendance, the seventh annual exhibition held recently under the auspices of the Llangollen Horticultural Society proved an unqualified success. The exhibition was held in a beautifully-situated enclosure in the vicinity of the Vicarage, kindly lent by Mr. Shaw, and some of the best-known horticulturists of the county competed. The display in the open classes was particularly good, in the vegetable department the principal prize-winners including Major Tottenham, Mrs. Edwards (Trevor Hall), Police-Sergeant Wyse, Sir Theodore Martin, K.C.B., K.C.V.O., Mr. Lloyd Edwards, Mr. Coster Edwards, Mr. R. S. Richards, &c. There was a keen competition for the prizes offered for the best group of plants arranged for effect, Mr. G. H. Robertson, Plas Newydd, carrying off premier honours, and also being to the fore in a large number of other classes for single plants and flowers, in which classes the other prize-winners included Mr. R. F. Graesser (Argoed Hall), Mrs. Edwards (Trevor Hall), the Misses Thomas (Llantsyllio Hall), Sir Inedore Martin, Mrs. Gray (Tyndwr), &c. The competition for the best kept garden was exceptionally keen, the judges awarding no less than nine prizes for the outside floral display, Mr. Frank Jones's garden at Glanrafon Cottage, which was awarded the first prize, being a perfect picture of beauty. Major Tottenham was the winner in the champion Potato class; Mr. John Davies, Chapel Street, Llangollen, carrying off the prize for kidney Potatoes. Some splendid Grapes were shown, the Misses Thomas (Llantsyllio Hall) carrying off premier honours. There were keen competitions in all the fruit classes, the winners including Sir Theodore Martin, Major Tottenham, Mr. J. C. Edwards, and Misses Thomas. The exhibition was the most successful held under the auspices of the society. The judges were Mr.

Shaw, Plas Power, Wrexham, and Mr. W. Higgins, Rdg, Corwen. Mr. J. Mossop, Aberadda, made an excellent secretary.

SCOTTISH FLOWER SHOWS.

MILNATHORT.—This society held its twentieth annual show on the 2nd inst., when there was an excellent show in practically all the departments. Some capital exhibits were shown in the classes for nurserymen and gardeners. Among the winners here were Messrs. D. and W. Croll, Dundee, who won the first prize for twenty-four Rose blooms, Messrs. W. and R. Ferguson, Dunfermline, being second. Mr. M. Whitehead, Selkirk, was first for Carnations, and Mr. L. Black, Kinglassie, first for herbaceous plants. In the gardeners' class, Mr. Pearson, secretary of the society, was awarded a first prize for Dahlias. The amateurs' classes were very good.

EAST LOTHIAN.—The annual show of this society, which was held in the Corn Exchange, Haddington, on the 2nd inst., was one of the best of the sixty-seven held by the society since its inception. The quality of the exhibits was extremely high, and the number of entries very satisfactory. A marked improvement was observable in the classes for amateurs and cottagers, and the competition in both these sections was exceedingly creditable to the district. The classes for professional gardeners were also extremely good, among the most successful in this section being Mr. W. Galloway, gardener to the Earl of Wemyss, Gosford. Among the other prizewinners in this section were Mr. Highgate, Yester, who showed very well; Mr. W. Mair, Beechhill; Mr. J. Borrowman, Stevenson; Mr. A. Archibald, New Winton; and Mr. R. Stewart, Haddington. The Countess of Wemyss's cup, for the best-scented Rose in the show, was won by Mr. W. Murray, and the prize for table decorations was awarded to Miss Park. Mr. A. Archibald, New Winton, was very successful in the three sections—professionals' or open, amateurs', and cottagers'.

SELKIRK.—This society held its annual show in the Victoria Hall, Selkirk, on the 2nd inst. There were altogether about 800 entries, this being slightly above those of last year. Pot plants were good on the whole, but the cut flowers and vegetables were the strongest sections. Sweet Peas were among the best exhibits in the cut flower classes. Among the non-competitive exhibits was a good display of early-flowering *Chrysanthemums* sent by Mr. J. A. Foster, Selkirk, and comprising the best of these popular flowers. The most successful prizetaker was Mr. William Anderson, Hangingshaw, who had nineteen first prizes in the classes open to gardeners and amateurs. Mr. W. Stenhouse, Wellwood Park, had fourteen firsts. In the cottagers' classes the leading prizewinner was Mr. J. Henderson, Bowhill, who had fifteen first prizes.

ROYAL HORTICULTURAL OF ABERDEEN.—The annual show of this society was opened in the Duthie Park, Aberdeen, on the 24th ult., and continued on the 25th and 26th. It was one of the best shows yet held by this society, and compared favourably in all departments but one with the previous exhibitions. The number of entries showed a considerable increase over those of last year, and they numbered in all about 1,804. In the classes for professional gardeners the weakest section was that for plants in pots, the absence of some former competitors and the smaller amount of attention devoted to specimen plants accounting for this. Among the most successful in this department were Mr. James Jenkins, who was awarded the first prize for his table, Mr. A. Douglas, Mr. A. Duncan, Mr. J. M. Simpson, Mr. J. Jamieson, Mr. A. Petrie, Mr. James Anderson, and Mr. W. Mackie. The cut flowers were unusually numerous and of high quality, and the prize for twenty varieties of cut flowers went to Mr. W. Mackie with a good exhibit. Among the other leading exhibitors were Mr. A. Grigor, Mr. J. Anderson, Mr. W. Scorgie, and Mr. A. Delgarno, the last of whom had the best twenty-four Roses. The fruit was excellent, and leading winners here were Messrs. W. Scorgie, W. Harper, F. Kincaid, G. Taylor, J. Petrie, A. Douglas, and G. McLennan. Vegetables were a large class, and exceedingly fine. The first prize for the collection was won by Mr. A. Patterson, Ruthrieston. The section for nurserymen and florists was a small one, but some very fine exhibits were shown. The class for thirty-six Roses was a capital one, Messrs. Adam and Craigmile coming first, Messrs. D. and W. Croll occupying a similar position in the class for twenty-four Teas. Mr. W. A. Dugan was awarded first and second prizes for Cactus Dahlias, and the winners in the classes for bouquets and wreaths were Messrs. Knowles and Mrs. J. Troup. The amateurs' classes were, as a whole, excellent, but it is impossible to give details of such extensive classes and the leading winners. Pot plants, cut flowers, and vegetables were all good. The same remarks apply to the classes for working men, who showed in great numbers and remarkably well. Their display of window-boxes was a fine one, and was made the subject of eulogistic remark by Sir A. Mackenzie, who opened the show in the unavoidable absence of his daughter, Lady Kilmarnock. Medals were awarded to Messrs. James Cocker and Sons, Messrs. Ben Reid and Co., Limited, Messrs. W. Smith and Son, and Mr. W. A. Dugan, all of Aberdeen, for their meritorious non-competitive displays. Mr. J. B. Bennet, the secretary, and the committee deserve praise for the excellence of the arrangements.

BRIDGE OF EARN.—This society held its forty-seventh show on the 2nd inst., when it was opened by Mr. R. Richardson, the honorary president, in the presence of a large company. The show was a very good one. One of the most successful winners was Mr. Brough, Bridge of Earn, who won for the third time the Moncreiffe Cup, which now becomes his property. Other leading winners were Messrs. Ellis, Paterson, Ferguson, Marshall, Davidson, Dobbie, Inglis, and Barlas, Mrs. Tait, and Dr. Govan.

KILBIRNIE.—The annual show of this society was held in the Good Templars' Hall on the 2nd inst., and was one of the best ever held in Kilbirnie. The number of entries was close on 800, against about 600 last year, while the quality of the exhibits was correspondingly high. Among the principal winners in the pot plant classes were Messrs. J. W. Dunlop, R. Irvine, A. Anderson, James Smith, and R. S. Ritchie; for cut flowers, Messrs. Dunlop, D. Houston, T. Brodie, J. Houston, jun., G. Richmond, and J. Ireland; and for vegetables and fruit, Messrs. F. Watt, A. Watt, Dunlop, J. McGann, and T. Simpson. The exhibitor who had most points was Mr. J. W. Dunlop, who thus became the winner of the Falton Memorial Cup.

LAUDER.—At the Lauder Horticultural Society's show, held on the 2nd inst., the most successful prizetaker was Mr. W. Watson, who also carried off the special silver medal for the best collection of garden produce, flowers excluded. Mr. Watson was successful in all the sections.

MARKINCH.—The annual show was a highly successful one, there being about 1,400 entries. The leading prizes were awarded as follows: Jubilee Cup and gold medal, for the best collection of vegetables, Mr. G. M'Combie, Rothes. Mitchell Bowl, for a collection of pot plants, Mr. J. Spittal, Woodside. Balmirne Challenge Trophy, for cut flowers, Mr. R. Syme. In the open section, the first prize for thirty-six Rose blooms went to Messrs. J. Simpson and Sons, Dundee; and that for the best thirty-six bunches of hardy herbaceous flowers to Messrs. James Cocker and Sons, Aberdeen.

HAWICK.—Last year an arrangement was concluded by which the two horticultural societies operating in Hawick and district were amalgamated, and the first show under the management of the new body was opened in the Exchange Halls, Hawick, on the 26th ult. The show was the finest held in the district for many years, practically all the departments having a satisfactory entry, while in several classes the competition was exceedingly keen. The pot plants were very creditable, and the prizes in the amateurs' classes were mainly secured by Mr. A. Scott, Mr. J. Scott, Mr. A. Wallace, Mr. W. J. Rutherford, Mr. J. Hobkirk, Mr. J. Ruthven, Mr. J. Bowers, Mr. H. Haddon, and Mr. R. Walker. The cut flowers were excellent, and the Sweet Peas formed a very attractive feature of this department. Mr. Thomas Duncan, Fogo, Duns, won the first in the classes for six and for four varieties of these popular flowers. Hardy perennials were good, Mr. A. Hume being first in the class for six bunches, and Mr. G. Oliver received a medal for his exhibit of cut flowers from the open. Mr. W. Buckham won the first prize for a collection of six dishes of fruit, and he was awarded the gold medal for his collection of vegetables in the open classes. In the amateurs' classes Mr. J. Glendinning won the special for eight varieties of vegetables. Mr. John Forbes, Buccleuch Nurseries, Hawick, had on view a very fine selection of his specialities, such as Phloxes and other florists' and hardy flowers, with pot plants.

DUNDEE.—The annual show of this society, which was opened on the 31st ult. by the Countess of Strathmore, was universally pronounced by those present to be the finest the society has yet held. The exhibits numbered upwards of 2,000. Among the non-competitive exhibits from the trade were Messrs. Dobbie and Co.'s of R. Chesney fine exhibit of Dahlias, Violas, and Pansies; Mr. John Forbes's, Hawick, florists' and other flowers; Messrs. W. P. Laird and Sinclair had a large exhibit of magnificent floral designs, &c.; Messrs. Storrer and Storrer showed such specialities as fruit, Begonias, bouquets, and other produce; Messrs. Thyne and Paton exhibited wreaths, bouquets, &c.; Messrs. D. and W. Croll showed splendid Roses; Mr. W. Farquharson, Perth, herbaceous plants; Mr. W. High, Carnoustie, Carnations; Messrs. Harley and Sons a number of beautiful floral designs; and Messrs. James Simpson and Sons Roses. As usual, much interest centred in the Corporation prizes for tables of garden produce, and the first in the open class was taken by Mr. James Kinnear, Fernbrae, in a very keen competition. The amateurs' class for a similar, but smaller, table only brought out one exhibitor, Mr. W. Goodall, Ceres, who had a capital exhibit. With plants in pots, arranged for effect, Mr. James Beate was first. The principal winners in other classes were Mr. D. Saunders, Mr. R. W. Saunders, Mr. R. N. Simpson, and Mr. G. Scott. In the open competition for bouquets and other arrangements Messrs. Perkins and Sons, Coventry, carried off the greater number of the first prizes. In the nurserymen's and florists' classes for cut flowers Messrs. D. and W. Croll were first for both Rose classes, Mr. D. M'Omish, Crieff, first for Cactus Dahlias, and Mr. W. Farquharson, Perth, for hardy flowers. In the fruit classes Mr. R. Cairns, Balruddery, was first in the class for a dessert table decorated with cut flowers and foliage with his fruit, Mr. Beate winning for decorations. The prizes for Grapes were well divided among a number of exhibitors. The vegetable classes, of high quality, were mainly won by Mr. E. Joss, who was first for his collection of vegetables. Amateurs showed well almost all through. The financial results of the three days' show have been very gratifying to those interested in its welfare. The drawings the first two days were rather disappointing, as they were about £23 less than for the corresponding days of last year, but the third one proved much more satisfactory, so that, despite the unfavourable weather conditions, the amount for the three days was £360 6s., as compared with £600 17s. 3d. in 1904. Upwards of 20,000 people entered the enclosure on the Saturday, when there were other attractions provided in addition to the show itself.

EAGLEFIELD.—This show is an example of what can be done in even out-of-the-way places by means of energetic management, as although its headquarters are only in a small country place, the society attracts to its shows exhibits from a considerable distance, and facilities being given by the railway companies, the public are attracted

by the varied provision made for them. The horticultural department is an exceedingly good one, by far the best in the south of Scotland. Pot plants at the show on the 2nd inst. were excellent, particularly in the cottagers' section, where the specimens were superior to those exhibited in the gardeners' classes. Cut flowers, particularly some of the florists' flowers, were of the highest quality. Vegetables were fine, especially Potatoes, and fruit was capital. In the open section Mr. W. Anderson, Mosknowe, led in two Fuchsia classes, and Mr. W. Webster, Springkell, was first in the other pot plant classes, with the exception of one for young Fuchsias, which was won by Mr. J. Campbell. The winners in the cut flower section were too numerous to detail, a similar remark applying to the fruit and vegetables; but Mr. J. Burton, Penrith, had the best collection of vegetables. Mr. Burton also took a similar prize for the collection of vegetables in the cottagers' classes. The whole show, which had nearly 2,500 entries, was admirably managed by the committee and their able secretary, Mr. Allan B. Vye.

GLASGOW AND WEST OF SCOTLAND.—The annual show of this society, held in the St. Andrew's Halls, Glasgow, on the 6th and 7th inst., was one in every way equal to almost any of its predecessors, save, perhaps, in the fruit department, where there was some shortage, caused by the nature of the past season. The total entries of the show were practically the same as last year, and numbered in all 1,189. Pot plants were very good, vegetables excellent, and the cut flowers, always the strongest feature of the Glasgow show, were quite equal to former years, and were very fine indeed. The show was opened by Mr. A. Cameron-Corbett, M.P., who made a graceful speech. In the open classes pot plants have little recognition, but the first prize for a specimen Palm was awarded to Mr. J. Scott, St. Germain's, Bearsden, Mr. J. Humphrey, Belmont, Springburn, being first for twelve plants for table decoration. The cut flower classes in this department were excellent, and among the leading winners were: Pentstemons, Mr. W. Gemmell; Dahlias, Mr. J. Smellie and Mr. A. Brown; Sweet Peas, Mr. A. Hoggan; Carnations, Mr. C. Traill; Violas, Mr. J. Johnstone; Gladioli, Messrs. A. E. Campbell and Son; Roses, Messrs. James Cocker and Sons; Pansies, Mr. Charles Kay. Messrs. Malcolm Campbell, Limited, were the principal winners for florists' work, but first prizes were also won by Mr. J. Michie, Mr. A. M'Phee, Messrs. M. Gray and Co., Mr. R. Miller, and Messrs. A. E. Campbell and Son. Mr. J. Michie was first for twenty-four Tomatoes. In the classes open to gardeners and amateurs only there was strong competition, but it is impossible to mention more than a few in the leading classes. Mr. J. Miller led for Orchids; Mr. E. Miller had the best six plants for table decoration; Mr. W. Jenkins had the best six pots of Chrysanthemums; and Mr. J. Michie had the best six Crotons. In the cut flower department Mr. R. Lawrie, Roselea, was first for Gladioli; Mr. R. Sutherland first in three Dahlia classes; Mr. J. Stewart being first in that for Pompons. Mr. A. Forrest was first for Sweet Peas, and the following led in the respective classes: Show Pansies, Mr. C. Kay; Fancy Pansies, Mr. R. Paul; Pansies, Mr. J. Johnstone; Roses, Mr. J. Russell, Newton Mearns. Mr. T. Robertson led with herbaceous flowers. In the fruit classes Mr. R. Greenlaw had the best twelve dishes, and Mr. R. Miller and Mr. James Brown were awarded the first prizes for six dishes of fruit and six dishes of hardy fruit, other winners being Messrs. Hugh Thomas, J. Fionie, E. Glen, J. Ferrier, and J. Fletcher. In the vegetable classes Mr. R. Glen, Larbert House, was first for the collection, but space will not admit of the other winners being named. Amateurs showed exceedingly well, many of the prizes in this section falling to those who had successfully competed in the open and gardeners' classes. Non-competitive exhibits were very fine at this show, and included those of Messrs. Dobbie and Co., who showed Roses, Dahlias, Pansies and Violas, and herbaceous and other plants in their usual effective way. In the same hall were Roses and hardy flowers from Messrs. J. Cocker and Sons, Aberdeen, and of splendid quality. Messrs. Malcolm Campbell, Limited, sent a splendid collection of Orchids and other flowers and decorative plants. Messrs. Smith and Simons showed Begonias of high quality, and stove and greenhouse plants. Another excellent exhibit was that of Messrs. Austin and M'Aslan, while Carnations and Dahlias were well displayed by Messrs. M. Campbell and Son, and Cooper and Co. showed British bottled fruit. Mr. Hugh M. Mackie, the secretary of the society, made the usual excellent arrangements.

BANNOCKBURN HORTICULTURAL SOCIETY.—This society held their annual show in the Town Hall on the 2nd inst. The show was opened by Mr. A. D. Steel Maitland of Sauchieburn, Stirling, special mention being made of this the diamond jubilee of the society. The exhibits reached a high standard of excellence, the judges having difficulty in making awards in several classes. A model flower garden with miniature fountain, &c., a collection of thirty varieties of herbaceous cut flowers, also three dozen Onions, averaging in weight 1½ lb. to 2 lb. each, were on exhibition from Sauchieburn Gardens (gardener, Mr. Thomas Buchan).

SOUTHPORT FLOWER SHOW.

ALTHOUGH not numerous the exhibits at this show on the 24th and 25th ult. were creditable throughout. Among the most important in the competitive section was the collection of Carnations set up by Mr. C. Young, West Derby, which included over 100 varieties. Many of the leading kinds were well represented. This exhibit secured the silver cup presented by Mr. H. W. Nicholl. Mr. J. Lambert gained a silver medal as second prize. In the

three classes for Dahlias the leading awards went to Mr. H. Banks, Lathom, for Cactus and show, and to Mr. G. Packhurst for Pompon varieties. The best herbaceous cut flowers were from Mr. E. Wright, Formby. Of twelve Carnations Mr. J. Lambert had the best. For Sweet Peas Mr. J. McFell, Preston, was first in two classes. The best bouquets came from Mr. J. Mesley, Bolton (bridal), and Mr. J. Donohue, Birkdale (shower). Mr. J. Lambert had the most pleasing table decoration.

Mr. J. Hathaway secured a silver-gilt medal for a tastefully arranged group. Messrs. Gibson and Kendrew received a silver medal for horticultural appliances, garden seats, &c. Mr. W. Tomkins had a similar award for well-grown Ferns, Asparagus, &c. Bronze medals were awarded to Mr. E. Barker for table decorations, Mr. T. Lunham for Honey, and Mr. C. Young for Rose Mme. N. Levassasseur. Mr. W. Tomkins proved an efficient secretary.

BRISTOL AND DISTRICT GARDENERS' ASSOCIATION.

ON the 26th ult. the members of this association, on the invitation of Messrs. House and Son, paid a visit to Coombe Nurseries, Westbury-on-Trym, and spent a profitable afternoon among the very large collection of herbaceous and alpine plants which Messrs. House make a speciality of. Messrs. House met the visitors at the entrance and escorted them through the grounds, leaving nothing unseen. The collection of 20,000 Phlox were in full bloom, and presented a magnificent sight, while their collection of Moon Daisies was exceptionally good, especially Li Hung Chang, a really beautiful specimen of these favourites. Delphiniums also were very fine, and some of the finest to be seen in England are to be found in Messrs. House's collection. It was quite evident that much time and care are bestowed on the cultivation of every herbaceous plant which is worth growing, and Messrs. House and Son fully merit the name they have earned as most successful growers. The visitors were much charmed with all they had seen, and a cordial vote of thanks was passed to Messrs. House, as also to Mrs. J. House.

SPARKHILL AND DISTRICT AMATEUR HORTICULTURAL SOCIETY. MEMBERS ANNUAL OUTING.

ABOUT fifty members of the above society journeyed to Codsall on Saturday, the 26th ult., on the occasion of their sixth annual outing, when, at the kind invitation of Messrs. Bakers, they were conducted over the extensive nurseries of that firm, whose recent successes at the principal horticultural shows have brought their name so prominently before the public. The nurseries, which comprise some 105 acres, were full of interest to the visitors, and excited universal admiration. Among the most notable features were the magnificent collection of herbaceous plants, the Alpine garden, the Dahlia ground (comprising 3 acres), the Rosery (12 acres), and a grand array of Sweet Peas in some 100 varieties. The members of the society were subsequently entertained to tea by Messrs. Bakers. The return journey was broken at Wolverhampton to afford the visitors an opportunity of inspecting the retail branch of the business. The weather, which was all that could be desired, contributed greatly to make this one of the most enjoyable outings of the society.

CHELMSFORD AND DISTRICT GARDENERS' ASSOCIATION.

ON the 30th ult. the members of the Chelmsford and District Gardeners' Association made an excursion to Halstead. By kind invitation of George Courtauld, Esq., the magnificent grounds of Cut Hedge were inspected, Mr. Tullet (head gardener) conducting the party. From thence the party proceeded to Halstead Temperance Hotel, where they were received and entertained by Miss Philbrick, The Cedars, Halstead. The rest of the evening was spent in rambling round the pretty gardens of The Cedars. The party returned to Chelmsford by brakes and cycles after having spent an enjoyable day.

MANCHESTER DAHLIA SHOW.

THIS exhibition was held on the 8th and 9th inst. in most inclement weather in the large annexe of the Royal Botanical and Horticultural Society. Not only was the weather detrimental, but unfortunately the dates clashing with the National Show precluded the attendance of the southern growers.

OPEN CLASSES.

For thirty-six show and fancy, distinct varieties, Messrs. W. Artindale and Son, Sheffield, had the premier lot; Mr. Thomas Shawcross, Stretford, was second. In the class for twenty-four distinct the awards were the same as in the former class. For twenty-four Cactus, distinct, Mr. Caleb Eden, Sale, had the leading lot; Mr. W. Troughton, Preston, and Mr. Thomas Shawcross took the remaining awards. For the best display of cut Dahlias, Mr. J. Robson, Altrincham, won the society's silver medal with a well-arranged stand.

AMATEUR CLASSES.

For twelve show and fancy varieties, distinct, Mr. E. V. Cooper won with a good lot, Messrs. D. Johnson and W. Grimwald being second and third. For six blooms the prize takers were Messrs. D. Johnson, J. Hardin, and Thomas Barlow. For twelve Cactus, distinct, the following were the prize takers: Messrs. J. Thompson, E. Potts, and Thomas Shawcross. For a basket of cut Dahlias Miss A. Stanley had the leading award, Mr. Z. A. Ward second.

NON-COMPETITIVE.

Undoubtedly the most interesting portion of the show came under this heading. Messrs. W. Artindale and Son arranged an imposing and beautiful stand of Dahlias and herbaceous plants. This display worthily secured the society's gold medal.

Mr. Henry Brownhill, Sale, had a group of Conifers, Ivies, Heaths, a good strain of Gloxinias, and Dahlias, one of which—Cloth of Silver—secured a first-class certificate. Silver medal. Mr. H. D. Goulden, Moberly, also received a silver medal for an extensive collection of herbaceous cut flowers. Mr. W. D. Upjohn, gardener to the Earl of Ellesmere, Worsley, had some well-flowered plants of *Odontoglossum grande*. Messrs. Frank Dicks and Co., Manchester, showed *Gladiolus* in good variety. Mr. J. Derbyshire, Altrincham, sent Sweet Peas, these being good for the late season. Mr. A. J. A. Bruce showed *Heliotrope* General Roberts, carrying fine trusses of blooms, *Streptocarpus*, &c. Mr. W. L. Pattison, Shrewsbury, sent a good collection of cut *Violas*. Messrs. Dickson, Brown, and Tait, Manchester, showed Roses, Dahlias, *Chrysanthemums*, *Begonias*, &c. Messrs. Caldwell and Sons, Knutsford, sent Roses, Dahlias, and herbaceous cut flowers. Messrs. Dickson and Robinson, Manchester, displayed a table of Dahlias and greenery, *Gladioli*, *Pentstemons*, &c. Mr. P. Weathers, as usual, ably superintended the details.

ROYAL HORTICULTURAL SOCIETY.

THERE was a small exhibition on Tuesday, the 12th inst., and a poor attendance. Fruit was good, and many new Dahlias were shown.

ORCHID COMMITTEE.

Present: Mr. J. Gurney Fowler (chairman), Messrs. James O'Brien, Norman C. Cookson, de B. Crawshaw, James Douglas, W. H. Young, Walter Cobb, G. F. Moore, W. H. White, H. Ballantine, J. W. O'Leary, T. W. Bond, A. Hislop, F. W. Ashton, A. A. McBean, W. Boxall, H. A. Tracy, H. Little, and Francis Wellesley.

Messrs. Sander and Sons, St. Albans, exhibited several handsome *Lelio-Cattleyas* and hybrid *Cattleyas*. The original plant of *Cattleya barydiana* (Warszewiczii x *dowiana aurea*), flowered by the late George Hardy, Esq., and awarded a first-class certificate in 1885, was included. Silver Banksian medal.

Sir Trevor Lawrence, Bart, Burford, Dorking (Orchid grower, Mr. W. H. White), exhibited a small group of very interesting Orchids, among them being *Calanthe japonica* alba, *Stanhopea connata*, *Miltonia vexillaria* Leopoldii, and *Catasetum Bungei*.

Messrs. High Low and Co., Bush Hill Park, Enfield, showed several pretty Orchids, e.g., *Cypripedium Charlesworthii* x *lawrenceanum*, *Cattleya dowiana*, C. Grossi and C. mollis (gaskelliana x *superba*), *Miltonia morelana*, and *Phalenopsis violacea* Low's variety. Vote of thanks.

Messrs. Stanley and Co., Southgate, N., exhibited a group of Orchids that contained such good plants as *Cattleya bicolor*, C. gaskelliana, C. intricata (schofieldiana x *harrisoniana*), C. harrisoniana, C. Tankervillei (bicolor x *Rex*), C. dowiana aurea, and other fine *Cattleyas*, as well as *Zygopetalum crinitum* and *Odontoglossum*. Silver Banksian medal.

Several hybrid *Cypripediums* were shown by G. L. Palmer, Esq., Lachham Gardens, Lacock, Wilts (gardener, Mr. J. Bannerman). Vote of thanks. Several other Orchids were shown by various exhibitors, but only those described below obtained recognition. The famed *Cypripedium fairieanum* was shown by N. C. Cookson, Esq.

NEW ORCHIDS.

Cattleya kienastiana Oakwood variety (aurea x *ludemanniana*).—A large handsome flower with rich lilac rose sepals and petals, and large fringed purple lip, marked with golden yellow on either side of the throat entrance. The throat is lined with yellow upon a crimson-purple ground. From N. C. Cookson, Esq., Wylam-on-Tyne (gardener, Mr. Chapman). First-class certificate.

Cattleya iris magnifica (C. bicolor x C. aurea).—A large handsome form with sepals and petals of old gold colouring, and lip of crimson-purple. From Major Holford, C.I.E., Westonbirt, Tetbury (Orchid grower, Mr. Alexander). Award of merit.

Cypripedium villosa-rothschildianum.—This, as its name indicates, is the result of a cross between C. villosum and C. rothschildianum. The dorsal sepal has a bright yellow ground heavily lined with dark brown, the petals and lip are less brilliant in colouring. Shown by N. C. Cookson, Esq. Award of merit.

Cattleya iris inversa (dowiana var. aurea x *bicolor*), a striking and effectively coloured flower. The petals are greenish brown, faintly suffused with rose, and the lip is deep purple. From Messrs. Sander and Sons, St. Albans. Award of merit.

Stanhopea connata.—The sepals are light apricot coloured; the petals are a deeper colour, and blotched with crimson. The curious pouch-like fleshy lip is deep yellow outside and crimson within. From Sir Trevor Lawrence, Bart. Award of merit.

Cyclopis peruvianum.—The curious recurved sepals and petals are dotted with dull crimson on a pale green ground colour. The small, deeply-cut lip is white, and the long, curving column is very distinct. From Sir Trevor Lawrence, Bart. Award of merit.

A cultural commendation to *Epidendrum lauchianum*, and botanical certificates to *Calanthe japonica* alba and *Brassavola cucullata* (all from Sir Trevor Lawrence, Bart.), were awarded.

FLORAL COMMITTEE.

Present: Mr. W. Marshall (chairman), Messrs. C. T. Drury, J. Green, W. Howe, C. R. Fielder, C. Dixon, C. Jeffries, C. E. Pearson, W. P. Thomson, and E. H. Jenkins. The *Begonias* from Messrs. A. L. Gwillim, Cambria Nursery, New Eltham, Kent, were representative of a

splendid strain of these flowers. The chief colours were salmon, deep crimson, orange of pale and deep shades, salmon-scarlet, white, rich yellow, and rose. They filled an entire table. Some few double kinds were staged, and these also were of much merit. Silver Banksian medal.

A beautiful exhibit of Dahlias was that from Messrs. J. Cheal and Sons, Crawley, Sussex. Of the Cactus kinds were noted Pearl, rose, with light centre; Floradora, maroon; J. B. Riding, bronze and yellow; Cockatoo, white florets, the bases coloured canary yellow, a very charming flower, and others. Single-flowered kinds were excellent and distinct. Silver Banksian medal.

The exhibit of cut herbaceous flowers from Mr. M. Prichard constituted quite a feature of the exhibition. Everything was displayed in large masses. Of the bolder things we noted *Lilium tigrinum* Fortunei, *Rudbeckia laevigata*, *Helenium grandicephalum* striatum, H. autumnale superbum, and Miss Willmott's variety of *Helianthus rigidus*. Of the dwarfier things we noted *Aster Amellus* in variety, *Montbretia*, *Gladioli*, &c. Silver Flora medal.

A group of hardy things from Messrs. James Veitch and Sons, Limited, Chelsea, included good specimens of *Artemisia lactiflora*, a small white-flowered plant suited to woodland gardening; *Lilium leucanthum* from Central China; *Aconitum Wilsoni*, a fine bit of blue; a variety of *Hibiscus*; and a good blue-flowered *Ceanothus*, C. Phare. Silver Banksian medal.

Clematises were well shown by Mr. L. R. Russell, Richmond, and in considerable variety, the plants in small pots well flowered. Mrs. George Jackman (white), *Ville de Lyon* (ray carmine, very fine) *Langunosa nivea*, and *Beauty of Worcester* (deep blue), were all good. *Jackmani superba* is a very dark variety of great merit. Silver Banksian medal.

Five splendid examples of *Asparagus Sprengeri* came from Mr. G. Gumbrell, gardener to J. Westmacott, Esq., Ware. Silver Banksian medal.

Alpines in pots and pans, with Pompon Dahlias and a few hardy cut flowers in variety were exhibited by Messrs. J. Peed and Sons, West Norwood.

A capital exhibit of Dahlias came from Mr. J. T. West, Tower Hill, Brentwood. Cactus and Pompon kinds chiefly were staged. The Pompons, too, were a very pretty lot, and the whole arranged with taste and judgment constituted a highly attractive exhibit. Silver Flora medal.

The Phloxes from Messrs. Gunn and Sons, Olton, Birmingham, were in every way excellent. The masses were effective, bright, and fresh-looking, and we think we have not seen them better at this season. All the best known varieties of commerce were noted. Silver Flora medal.

Messrs. William Bull and Sons, Chelsea, staged a small collection of stove plants, as *Crotons*, *Aralias*, *Alseodias*, *Caladiums*, *Peperonia metallica*, and such-like things, all in compact useful examples.

Pompon and single Dahlias were finely shown by Messrs. Carter, Page, and Co., London Wall, E.C., the flowers arranged in erect form in the vases, and not in the set wire frame as usually seen. Draped with *Ampelopsis Veitchii* the arrangement, too, was good. Silver-gilt Banksian medal.

Cactus Dahlias and *Pentstemons* were in good form from Messrs. H. Cannell and Sons, Swanley, Kent.

The hardy plants from Mr. Amos Perry, Winchmore Hill, were a very fine lot, e.g., *Phloxes*, *Montbretias*, *Heleniums*, *Kniphofias*, *Pentstemons*, *Lobelia Queen Victoria*, *Astrantia*, *Helenium cuprea*, and *Campanula Fergusoni*. An excellent plant, too, is *Rudbeckia fulgida variabilis*. Lilies were finely shown. Water Lilies were good. Silver Banksian medal.

Streptocarpus of an excellent strain, in which blue, white, and rose-coloured flowers were conspicuous, were well shown by Messrs. Veitch and Sons, Limited, Chelsea.

Begonia Bronze Beauty, a dwarf kind for bedding, was shown by Mr. G. H. Townlow, Malvern Link.

NEW PLANTS.

Chrysanthemum George Bonness.—A sport from Marie Masse, the flowers coloured a bronzy shade, with gold reverse.

Chrysanthemum Wells' Masse.—Also of the Masse type, with creamy white flowers.

Chrysanthemum Harrie.—A very distinct type, not more than 20 inches high, wonderfully free in flowering, and coloured a bronzy gold. Each of these received the award of merit, and were exhibited by Messrs. W. Wells and Co., Merstham, Surrey.

Dahlia Starlight (Cactus).—A very elegant form, with narrow florets. Colour, vermilion-scarlet.

Dahlia Mrs. H. Shoemith (Cactus).—Nearly pure white, the petals somewhat straight, but good in form generally.

Dahlia H. Shoemith (Cactus).—A rich crimson-scarlet, with beautifully incurved florets. These three were from Mr. H. Shoemith, Woking, and each received an award of merit.

Dahlia The Pilot (Cactus).—A highly meritorious flower, coloured bronzy orange with yellow centre, the long incurving florets and the beautiful colour combining to make a flower of sterling quality. From Messrs. Hobbies, Limited, Dereham, Norfolk. Award of merit.

Dahlia Tom Tit (Pompon Cactus).—A small type of flower coloured rosy mauve. The full size flower is but 3 inches across. From Messrs. J. Stredwick and Son, St. Leonards. Award of merit.

Dahlia Macmillan (Cactus).—Rosy mauve, with white centre.

Dahlia Peach (Cactus).—Warm terra-cotta shade. A most exquisite colour in Dahlias.

Dahlia Primrose (Cactus).—A lovely pale primrose, the large handsome flowers of good appearance. These came from Messrs. J. Stredwick and Son, St. Leonards, and each received the award of merit.

Dahlia Mrs. F. H. Cook (Cactus).—A flower of large size coloured fiery orange. From Messrs. J. Cheal and Sons, Crawley. Award of merit.

Dahlia Daisy (Cactus).—Fawn and rosy lilac. A very attractive flower.

Dahlia Thora (Pompon).—Creamy blush tinged with rose, and ideal in form. From Mr. Charles Turner, Slough. Award of merit.

Sedum sweetabile atropurpureum.—A robust-growing, dark-flowered form of this well-known autumn-flowering plant.

Diervilla Saturne.—A profuse flowering kind, with tubular flowers coloured reddish crimson.

Sagittaria macrophylla.—A very handsome species, with pure white flowers at intervals on stems 3 feet high. The foliage, too, is handsome, and in autumn is highly coloured. These three plants were exhibited by Mr. Amos Perry, Winchmore Hill, and each received an award of merit.

* * The report of the fruit and vegetable committee is unavoidably held over.

Obituary.—D. P. Laird.—We regret to announce that information has been received of the accidental drowning in Loch Awe of Mr. David Pringle Laird, senior partner of the firm of R. B. Laird and Sons, nurserymen and florists, Edinburgh. A week ago Mr. Laird went to Oban and district on business. On Saturday his relatives in Edinburgh received from him a letter bearing the postmark of Loch Awe, stating that Mr. Laird would soon be home, in all probability before the letter arrived at its destination. Mr. Laird did not arrive, and late on Saturday night the relatives were informed by the police that the body of Mr. Laird had been found in the loch. No particulars of the accident are known to the relatives. Mr. Laird, who was fifty-two years of age, was well known in business circles, having been the head of his firm since his father's death. He was one of the most prominent figures in the Scottish horticultural world, and was one of the leading men in the Arboricultural Society, although of late his time and attention were more largely taken up by his business. He was one of the leading spirits in the council of the Royal Caledonian Horticultural Society. Mr. Laird's business brought him into close touch with Scottish and English growers and arboriculturists, and his genial disposition, his general air of good fellowship, and his sterling qualities as a business man secured for him a wide measure of popularity and respect. Mr. Laird married a Canadian lady. Later information regarding the drowning at Loch Awe of Mr. Laird shows that the deceased arrived there on Friday afternoon, having travelled from Oban. He engaged a bedroom in the hotel, and towards evening proceeded to the station to await the arrival of an evening paper. He met one of his customers, who resides on the loch, and whose launch was lying at the pier. Mr. Laird saw the launch off, calling to his friend as he left "to be sure to come to Edinburgh Flower Show on Wednesday." That was the last seen of Mr. Laird. Next morning he was missed, his room at the hotel not having been occupied. His cap and cigar case were found in the loch, and the worst being feared, Mr. Fraser, the hotel-keeper, ordered trawling operations to be proceeded with. After four hours' work the body was found in the water opposite the hotel.

James Joss.—The death is announced at Montrose on the 5th inst. of Mr. James Joss, who was gardener at Sunnyside, Montrose, for twenty-eight years. He retired about four years ago, the situation being now filled by his son, Mr. E. Joss, who is well known as a good gardener. Mr. James Joss was born at Marnoch, Banffshire, about eighty years ago, serving his apprenticeship in the gardens of Troup House in the same county. He was afterwards foreman in the gardens of Auchintoull, and filled for some time the post of head gardener to Colonel Gordon, Parkhouse. He was afterwards gardener at Auchrie House, a situation he filled for about fourteen years, during the course of which he distinguished himself as a successful prize taker at Aberdeen and other shows.

* * The Yearly Subscription to THE GARDEN is: Inland, 6s. 6d.; Foreign, 8s. 9d.

THE GARDEN.

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THE EDINBURGH HORTICULTURAL EXHIBITION.

THE International Horticultural Exhibition, promoted by the Royal Caledonian Horticultural Society, and held in the Waverley Market, Edinburgh, on the 13th, 14th, and 15th inst., proved a complete success. Our report of the show on another page will give some idea of the nature of the exhibits, necessarily brief though it is, but no mere report can do justice to them. The magnificent displays of fruit and flowers, the groups of plants, the crowded aisles, made a striking picture, revealing how deep is the love of gardening among the British people. Never has gardening had a stronger hold than to-day, and the success of this show is an evidence—were evidence needed—that in Scotland the ancient craft is as much appreciated as ever. It has changed in its expressions, doubtless, and one of the objects of the promoters was to show the progress made in horticulture since the previous International Horticultural Exhibition in Edinburgh fourteen years ago.

In some things it can hardly be said that much progress has been made. Thus it is doubtful if finer or better Grapes are produced now than fourteen years ago, and some once-popular plants and flowers have fallen into neglect. Old gardeners who can recollect the huge specimen plants of former times, speak regretfully of their size and beauty, and disparagingly of the smaller but finely-grown plants now seen. On the other hand, there has been great progress in many ways.

In nothing is this more evident than in improved methods of arrangement. The formal flowers approved by the older florists have given place to others of freer habit and greater elegance. Then there can be no comparison in the matter of floral arrangement of fourteen years ago and now. At this exhibition the contrast between the old and the new was vividly shown in some classes, where stiff, heavily-arranged exhibits were placed alongside those displayed with more artistic treatment. Much might be said, also, of the improvements made in some plants, *e.g.*, Orchids, Begonias, Cactus Dahlias, Pentstemons, and many other flowers with which we are all acquainted.

The exhibition has served other useful purposes. It has stimulated the interest taken in their craft by gardeners from almost every part of the United Kingdom who have visited it; it has given them much to emulate and high standards at which to aim; and, not least, it has renewed old and formed fresh acquaintanceships among many whose homes are far apart. To the nursery and seed trade this exhibition offered a splendid means of bringing their products before the patrons of horticulture. That they recognised this was evidenced by the magnificent exhibits they staged, and by their generous support to the funds of the exhibition. Much might be written with regard to the exhibits, but it may be said that where so many were excellent it would be difficult to make selections. None, however, would deny that special mention should be made of such a noteworthy exhibit as that of the Parks Department of the Corporation of Glasgow.

In the competitive section mention may also fitly be made of Mr. Goodacre's table of fruit, Mr. Beisant's victory with his magnificent Grapes, Mr. E. Beckett's vegetables, and Messrs. J. Cocker and Sons' decorative Roses, all of which were excellent.

The personal and enthusiastic support it has received from men eminent in the world of gardening is very gratifying to the Royal Caledonian Society. His Majesty the King gave it countenance and substantial support; noblemen were ready to support the society and its noble president, Lord Balfour of Burleigh, with their patronage; and great gardeners of England, Ireland, and Wales helped to the success of the show as its judges; while last, but not least, the Royal Horticultural Society honoured its sister institution of Scotland by sending its president, Sir Trevor Lawrence, Bart., its secretary, the Rev. W. Wilks, M.A., and others of its council as a deputation, and by awarding its medals, which will be highly prized by their recipients. In closing, we must congratulate the council of the Royal Caledonian Horticultural Society upon its spirited action in organising this great exhibition, upon the excellence of the arrangements made by Mr. P. Murray Thomson, secretary, and his colleagues, and the success that has attended their efforts. We hope that this exhibition may be the means of

giving to the society a still greater measure of support in the object it has in view—the encouragement of gardening in Scotland.

THE EDITOR'S TABLE.

HYBRID GLADIOLI.

We have received from Messrs. Kelway and Son, Langport, Somerset, a spike of a new hybrid which will probably prove the progenitor of a distinct and beautiful group. The flower is beautiful in itself, the segments are firm, making an almost circular bloom, and the colour is delightful. The upper segments are soft cream, with a suspicion of crimson, and the lower ones are sulphur yellow, with crimson on the lower half. This crimson colouring is very rich, and gives distinct character to the flower.

We have received another very beautiful hybrid Gladiolus from Langport. The flower is large, without a suggestion of coarseness, and pure white, except for a rich crimson colouring from the middle to the base of the lower central segment, and on the other lower segments also, but there the colouring is almost hidden. It is a most striking flower; the contrast between the pure white and crimson is very effective.

GLADIOLI FROM RAMSGATE.

Mr. Bull, Rathlin, Ramsgate, the well-known raiser of new Gladioli, writes: "I send a few cut spikes of Gladioli. The varieties are picked seedlings from my general stock. The two yellow seedlings with labels promise to be exceptionally fine, but the stock is still scarce. Of the named varieties White Lady is to my mind the finest (and only) absolutely pure white Gladiolus raised. Commandant Marchand (ruby-red) and La Parisienne (yellow, shaded mauve-purple) are grand Gladioli, but the drought we have had here since mid-June has been very hard on them. Mme. Poiret (orange rose) is one of the most lovely varieties for cutting I have grown. On the whole, I think you will agree that these older varieties of *G. gandavensis* will hold their own against many, if not most, of the newer so-called hybrids. All the spikes I send are cut from the open field, and have had no artificial culture." The numbered flowers were very beautiful, and the colourings soft and unusual. Of the named hybrids the following were admirable in all ways:

La Parisienne.—A superb flower of perfect form, with broad segments flushed with rosy purple; the young opening flowers are quite sulphur yellow, and this colour is seen on the middle segment.

White Lady.—The spike of this was small, but this is solely due to the drought. It is a pure white, the only noticeable colour being on the lower segments, where there is a suffusion of primrose. We congratulate Mr. Bull on raising so beautiful and distinct a Gladiolus.

Commandant Marchand.—One of the darkest Gladioli we have seen, the colouring of the flower reminding one of a Sultan of Zanzibar Rose. The shade is intense.

Haine.—A beautiful sulphur yellow seedling, with a stripe of dark crimson on the outer base of the segments. The three lower segments have each a central stripe of crimson.

Tigridia.—We do not care so much for this, the flowers are too striped, but it is interesting, and Mr. Bull says useful for cutting.

SOME MONTBRETIAS.

Mr. Davison sends from Westwick Gardens, Norwich, flowers of several handsome new Montbretias, some of which have been shown before the floral committee of the Royal Horticultural Society and given awards of merit.

Prometheus is one of these, and a noble flower it is. It is quite $3\frac{1}{2}$ inches across, and the colour is a deep glowing orange with a touch of brownish crimson. The flowers are rather scattered on the green stalk, but their intense colour and size compensate for quantity. The segments are three-quarters of an inch across.

Edmund.—A brilliant yellow flower, not large, but neat and shapely, and at the base of each segment are two crimson spots; the segments are about 1 inch broad and of considerable substance.

Westwick.—A flower about the same size as Edmund, very distinct and yellow, flushed with a reddish shade. At the base of the segments is a broad, dull crimson band; the centre is yellow, and the long buds are crimson-brown.

Hereward.—A bright flower, quite a self yellow, without any spotting. It is a clear shining shade of colour. The plant is very free and graceful; an excellent Montbretia for massing in the garden.

Germania.—This has flowers $2\frac{1}{2}$ inches across, and almost blood red. It is one of the deepest in colour of the Montbretias; the buds are dark red and the stems slender.

Ernest Davison.—This is not quite so distinct as the foregoing, but the colour consists of orange and red shades.

DELPHINIUMS.

Mr. E. T. Kirtland sends from The Hermitage Gardens, Epsom, varieties of Delphinium "from seed sown on April 5 of this year. At present they are a mass of flower, the blue especially being noticeable. They are from 15 inches to 18 inches high, of light and graceful habit. No special culture has been given, the seedlings being planted out of the seed-box on an ordinary border. They are valuable and distinct plants for borders, masses, or cutting. I have two year old plants which have been in flower for three months, and continue to throw up spikes if old ones are cut out. The varieties are Sutton's Queen of the Blue and Sutton's Dwarf Porcelain Blue." The flowers were very charming, especially the dark blue form.

THE CHILIAN NUT.

Mr. S. Wyndham Fitzherbert writes from South Devon: "I am sending you a flowering spray of Guevina avellana (the Chilean Nut). It is a rare shrub or tree. A fine specimen 22 feet in height is growing in Mr. T. B. Bolitho's garden at Greenaway on the river Dart, and is now in full flower."

[A shrub with handsome leaves and long axillary racemes of small whitish flowers.—ED.]

TUBEROUS BEGONIAS.

Messrs. Arthur Charlton and Son, Summer-vale Nursery, Eridge Road, Tunbridge Wells, send some very good flowers of the tuberous Begonia in many brilliant colourings and varied forms, with the following note: "These flowers are cut from seedling plants in the open ground, which are now making a grand display; there are many thousands of this year's seedlings in full blossom. The value of these Begonias for bedding purposes is fully apparent, for they are as fresh and vigorous after the recent torrential rains as it is possible for them to be, while the

flowers of Geraniums and similar plants are totally spoilt. We regard the cristata or crested Begonias, the crispa or fringed, and the mar-morata or butterfly varieties as being among the finest of summer and autumn-flowering plants, either for outdoor or indoor culture."

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

September 26.—National Rose Society's Show, Horticultural Hall, Westminster (two days). Lecture by Mr. W. F. Cooling on "Autumn Roses" on the first day.

October 4.—National Chrysanthemum Society's Show (two days).

October 10.—Royal Horticultural Society's Exhibition of British-grown Fruit (three days). Conference of fruit-growers on all three days.

October 24.—Royal Horticultural Society's Exhibition of Home-grown Vegetables. Lecture by Mr. W. P. Wright on "Potatoes."

October 31.—Southampton Horticultural Show (two days).

November 7.—Royal Horticultural Society's Meeting. Lecture by Dr. J. A. Voelcker, M.A., on "Chemistry in Relation to Horticulture."

November 15.—Liverpool Horticultural Association's Chrysanthemum and Fruit Show (two days).

November 24.—Darlington Horticultural Society's Fruit and Chrysanthemum Show.

A coloured plate of Rose Lady Gay, the beautiful new rambling Rose that was so much admired at the Temple Show in May last, will be given with THE GARDEN next week. The issue will be largely devoted to Roses and Rose culture.

Royal Horticultural Society.—In connexion with the Royal Horticultural Society's great show of British-grown fruit on October 10, 11, and 12, a conference on fruit-growing will be held under the united auspices of the National Fruit-growers' Federation and the Royal Horticultural Society. On Tuesday, the first day, 2.30 p.m. to 5 p.m., the subject for discussion will be "Foreign Competition and How to Meet It," Sir Trevor Lawrence, Bart., president of the Royal Horticultural Society, presiding. Wednesday, the second day, 11 a.m. to 1.30 p.m. (F. S. W. Cornwallis, Esq., president of the Royal Agricultural Society, presiding), "Fungoid and Insect Pests and How to Meet Them"; 2.30 p.m. to 5 p.m. (Arthur S. T. Griffith-Boscawen, Esq., M.P., presiding), "Land Tenure and Rating Difficulties." Thursday, the third day, 11 a.m. to 1.30 p.m. (Sir Albert Rollit, M.P., presiding), "Railway Grievances"; 2.30 p.m. to 5 p.m. (Colonel Long, M.P., president of the National Fruit-growers' Federation, presiding), the subject will be "Distribution of Information in Connexion with the Proposed Establishment of an Experimental Fruit Farm by the Board of Agriculture and its Possible Extension for Demonstration of Commercial Fruit-growing."

The long-lost Cyripedium (C. fairieanum).—This is now in flower in the Woodlands collection; it is the second plant to bloom from the reintroduced plants now in this country. After lying hidden in the mountains in far-away inaccessible Bhutan for half a century we have once more the pleasure of seeing this lovely species. Lindley designated it in the original description as "a vegetable gem." Messrs. Sander and Sons' standing offer of £1,000 for its rediscovery was no doubt the primary factor in the finding of this plant. Many collectors in India were searching for it, and when the new road in the valley of the Torsa in Bhutan was being formed by Government engineers it was stumbled upon accidentally. An

illustration of it (half the natural size) was given in THE GARDEN of June 7, 1873, page 431 (and also last week), together with a short note by Mr. F. W. Burbidge of the history of the plant and culture. Its history is now well known, but its culture is certainly not. Mr. Burbidge there says grow it cool or intermediate in a well-drained compost of turfy loam, peat, and sand, covering the top of the pot with living sphagnum moss. Give it a shady position and frequent syringings. Probably this mode of culture may be the most successful, except when the plant is making its growth and flowers, then it certainly requires nearly a tropical temperature. As it makes its growth in our summer it will usually have, in even an intermediate house, a sufficiently high temperature. Cyripedium fairieanum does not grow on the tops of the mountains with alpine plants, but it grows in the niches of the Greiss rock at about 3,000 feet to 4,000 feet elevation, fully exposed to the sun and air. When this plant is making its growth the weather is often intensely hot in the daytime, and the atmosphere very heavily laden with moisture at night, and the rains, too, are heavy, drenching everything, but growing in a crevasse of the rock, on its perpendicular face, where the wet rapidly drains off, and owing to the small amount of debris, leaves, &c., about the plant, it can never be stagnated. After the rainy season comes the resting season, with sunshine, drying winds, and cool nights. Sometimes about daylight for an hour or two the temperature is very low, and at 9,000 feet elevation there are often slight frosts. Mr. Measures is the fortunate possessor of a fine plant with three flower spikes, splendidly developed, hence the owner of the Woodlands collection may be congratulated in so soon bringing to the flowering stage one of the recently imported specimens.—ARGUTUS.

A valuable Tomato.—Those who are looking out for a good Tomato should grow Sutton's Earliest of All. This year I have proved it to be an excellent sort; it is prolific, and of good size and shape. Many fruits measured 10 inches to 12 inches in circumference, and would not have disgraced a show board.—J. HARRIS, Woolland, Blandford.

Sweet Peas in Austria.—Writing from Nussdorf am Attersee, Austria, the Baroness G. de Ransonné kindly sends a photograph of Sweet Peas growing in her garden there. Judging their height in comparison with that of a person standing by, it must be quite 6 feet to 7 feet. We are obliged to our correspondent for the photograph, and much regret that it is not suitable for reproduction.

The Willow Sunflower, as *Helianthus orgyalis* is aptly called, owes its popularity as a garden plant to its exceedingly graceful habit rather than to wealth of blossom, although flowers are produced, and in quantity, in October. Its stems reach a height of 7 feet to 8 feet, and are clothed from base to summit with long, arching leaves that are more graceful than Willows, and often exceed 1 foot in length. The stems are rigidly erect, and are conspicuous objects in the border throughout autumn. Early in September a flower-bud in a leafy verticil appears from every leaf axil, and the appearance of the stems is then remarkable indeed. Later the buds open from the top downwards, and the stem presents the singular aspect of a giant *Lilium chalcedonicum* studded thickly with flowers of Dandelion amid the long weeping foliage. It is capable of making satisfactory growth in almost any soil, and its remarkable habit suggests usefulness for planting amid formal shrubs in the wild garden, and in situations where the grace of a Willow-like plant would be an advantage. Custodians of large public and private pleasure grounds would, I think, find in *Helianthus orgyalis* a splendid subject for massing in large, isolated beds or clumps, enriching the soil in the centre of such plantings so that the central plants may grow the tallest.—G. B. M.

Arctotis grandis.—There can be no doubt that this half-hardy annual is a sun-loving plant. I find that it must be grown in full sun, otherwise the flowers fail to open. On wet and dull days the flowers remain closed. For cutting purposes it is useless, as the flowers when cut commence to close gradually, and when closed fail again to open in water. It has a very delicate scent and is rather attractive when out, but I do not think it will ever become popular. I for one am disappointed with it, and shall discard it after this season. — J. HIGGINS, *Rdg Gardens, Corwen.*

Hypericum patulum Henryi.—Last autumn this variety of the Chinese *H. patulum* was given an award of merit by the Royal Horticultural Society, and, judging by a bed of it in full flower at Kew, it well deserves that honour. It appears to be, as was claimed for it when exhibited, a hardier and more vigorous plant than the typical *H. patulum*; indeed, in general appearance it reminds one somewhat of the Himalayan *H. oblongifolium* (hookerianum), but is apparently a better garden plant. The flowers, which are nearly 2 inches across, are of a charming golden tint. For the introduction of this beautiful *Hypericum* we are indebted to Dr. Henry, who sent seeds of it home about half-a-dozen years ago. — T.

Ixora coccinea lutea.—Within the last two years or so we have seen *Ixoras* exhibited several times; not, it is true, as of old, in the shape of large specimen bushes, but as neat little plants mostly in 5-inch pots, each carrying several trusses of bright-coloured flowers. When many varieties are brought together there is, however, a considerable sameness among them, for with few exceptions the flowers are of some shade of orange, red, or salmon. A few, however, are very distinct, notably, *acuminata*, white; *Westii*, pink; *macrothyrsa* or *Duffii*, bright scarlet-crimson, in immense heads; and that at the head of this note, *I. coccinea lutea*, which is, except in colour, a counterpart of the well-known *I. coccinea*. The flowers, however, are of a pleasing soft yellow tint, so that in a collection of *Ixoras* they would stand out very prominently. I have, however, not met with it in general cultivation, though it has been at Kew for two or three years at least, and each season it is much admired. A group of sturdy little *Ixoras* was exhibited at the Chelsea show, but a few plants of the yellow variety would have added a pleasing change. — T.

Vaporising greenhouses.—We frequently hear of a collection in order to present a testimonial to some one or other for the services they have directly or indirectly rendered to horticulture, but the discoverer of one of the greatest benefits to the working gardener (of which I am one) within the last forty years still awaits his testimonial; in fact, it might be somewhat difficult to decide who is entitled to the honour. I refer to the destruction of insect pests under glass by vaporising, which is quite a simple and pleasant matter compared with the fumigating in my younger days. At that time crude Tobacco or paper and rags steeped in Tobacco juice were burnt in order that the fumes might destroy the insects. From the inflammable nature of these substances it was absolutely necessary to remain in the house during the process of smoking, which inflicted great hardship on many, particularly the non-smokers or those, like myself, who use the weed very moderately. This meant a state of absolute illness for two or three days, as in order to be effectual it was necessary to do it at least twice to attain the same measure of success as is reached by once vaporising, while many subjects—notably, plants in flower and Ferns—could not be fumigated, as their beauty would be destroyed. This entailed a great deal of shifting about when fumigating was to be done, with perhaps afterwards the reintroduction of a few insects, which soon increased. Nowadays all that is needed is to light

a few lamps, pour a little compound in the saucers, and, having previously shut up the house, retire till all is over. Mealy bug, too, which is uninjured by Tobacco smoke, is severely checked by vaporising. — P.

The Coral Tree (Erythrina Crista-galli).—This fine decorative plant is used to very good purpose this year in Hyde Park (Park Lane side). The plants are well grown and well flowered, and are planted in the grass in groups of threes, duplicated several times so as to form bold masses. Thus planted in association with Palms and other sub-tropical plants the effect is good. The plant is usually classed as half-hardy, but, with slight protection through severe winters, it succeeds very well when left permanently out of doors in the South of England. It may be raised from seeds or from cuttings. The latter should be the young shoots in spring with a hard heel to them. — T. E.

Senecio pulcher.—This is a striking late-flowering perennial. The colour of the bold, handsome flowers is reddish purple, a colour that



SENECIO PULCHER IN FLOWER NOW AT KEW.

does not associate well with other flowers, and is best appreciated when the cut flowers are placed in a vase by themselves. It is a most valuable plant for the autumn, often being in flower until November. The illustration is from a photograph taken in the rock garden at Kew. The best way to increase this plant is by taking root cuttings in winter. When these break into growth they should be treated as cuttings or tender seedlings for a while, eventually transferring them to their permanent positions.

Oxera pulchella.—This near ally of the *Clerodendrons* is a very pretty climbing plant for the stove, but at the same time it is not often met with. Still, good flowering sprays were shown at a recent meeting of the Royal Horticultural Society, so that it has not altogether dropped out of cultivation. It is a native of New Caledonia, and for its introduction we are indebted to the late Sir George Macleay, of Pendell Court, Surrey, where, during the

lifetime of that gentleman, a most interesting collection of plants was brought together. It first flowered there in the winter of 1886. This *Oxera* is a vigorous climber, clothed with ovate leaves 3 inches to 4 inches long, and of a rather light shining green colour. The flowers, which are borne in clusters on the upper part of the shoots, hang down gracefully. In shape they are of a broad trumpet form, being about 2 inches long and 1 inch across the expanded mouth, from which the long stamens protrude. Like the *Clerodendrons*, each flower is subtended by a large inflated calyx. The bloom itself is white, while the calyx is tinged with green. Cuttings of the half-ripened shoots are not at all difficult to strike, and the plants quickly attain effective size. — H. P.

Mascarenhasia eurnowiana.—This pretty stove plant was, I learn, recently in flower at Kew, which fact gave me great pleasure, for I was afraid it was now lost, as I had not met with it for some time, and the "Kew Hand List of Tender Dicotyledons" does not mention the name. The specific title commemorates its discoverer, by whom the plant was sent to Messrs. Low, then of Clapton, about 1880. At all events, it flowered with them in the summer of 1881, and a first-class certificate was given to it on August 23 of that year. It belongs to the natural order Apocynaceae, having for its immediate relatives such well-known genera as *Allamanda*, *Dipladenia*, *Vinca*, and *Rhynchospermum*. The best known species of this last, viz., *R. jasminoides*, it resembles a good deal in general appearance, but the five star blossoms are of a bright rosy scarlet colour, and consequently very attractive. Individually they are about 1½ inches across and borne in few flowered clusters. When first introduced I had a considerable number under my care, and found no difficulty in their cultivation in the temperature of a moist stove. In a compost of equal parts of good loam and fibrous peat, with a liberal sprinkling of silver sand, they were at home. — H. P.

Rubus rosæfolius.—I was surprised, nay, astonished, to see in a great first prize collection of dessert fruit at Shrewsbury a dish of this *Rubus*, the fruits of which, if pretty to look at, are the most worthless conceivable for table purposes. Two things in relation to this *Rubus* are noteworthy. In the first place, no mention of it is made in the list of suitable fruits and the maximum of points awarded to each in the society's schedule. In the second place, the conditions expressed in connexion with the class in which this miserable fruit appeared specify that the "fruit exhibited shall be of the highest cultural merit." Where, then, was the cultural merit seen in a dish of fruits gathered from an ordinary hardy shrub? The judges in this case were very generous to allow such a poor thing to pass as a dish of dessert fruit. A dish of Mulberries would have been of treble value. — D.

THE FLORIST'S BIBLIOGRAPHY.

DURING the past twenty years or more there has been a very keen interest displayed in horticultural literature, not only by the professional gardener but also by the amateur. This interest is probably found to its fullest extent in the United Kingdom, where the publication of many beautiful books on garden subjects has rather increased than satisfied a popular demand.

Another feature of the interest in everything pertaining to the literature of gardening is that to-day there is a large and increasing number of collectors of rare old books and pamphlets, directly or indirectly dealing with the various branches of horticulture, with the inevitable consequence that such works are rapidly becoming

scarcer and more difficult to obtain. From a purely practical standpoint this is perhaps of little moment, because the would-be up-to-date cultivator can easily obtain excellent modern cultural manuals of every description, written by capable authors, no matter to what branch of the gardening art he wishes to apply himself.

But with the mere book collector it is different, and especially so to him who starts somewhat late in the endeavour to put together a little collection of books on any particular subject he may fancy. The increase of collectors means a considerable increase in price. It is well known that old gardening books that could have been easily bought a few years ago at an insignificant figure are nowadays almost unobtainable except at a very much higher figure, and, indeed, in some cases are so rare as to be quite beyond the means of the ordinary collector.

Having for a good many years past spent a portion of my somewhat scanty leisure in putting together all the old books and pamphlets on florists' flowers obtainable, I have been much struck with the very limited knowledge concerning them that there appears to be among the majority of my gardening friends. Unfortunately, there is no up-to-date garden bibliography extant to which reference can be made. The only ones that exist are those by George W. Johnson in "A History of English Gardening," published in 1829, and by the Hon. Alicia Amherst in "A History of Gardening in England." Although the latter was published sixty-seven years after Johnson's, for all practical purposes the bibliographical list given by the Hon. Alicia Amherst covers only the same period as Johnson's, ending as it does with the year 1836. A great blank therefore remains to be filled up by some one who has the time and the inclination for the task.

In preparing the following list the main idea has been to include only such books, pamphlets, and treatises as deal exclusively with flowers and the flower garden. For obvious reasons it cannot be claimed to be an absolutely complete one, although great pains have been taken to make it so as far as possible. If any apology is needed for its appearance, it can safely be affirmed that it is unique, for there is no other work treating solely upon the subject. There are, of course, the library catalogues of some of the great horticultural societies, but these are lamentably deficient in works relating to florists' flowers and the flower garden in general.

Some readers may point out what they regard as important omissions, and of these the compiler is fully conscious. Of late years there has arisen a class of gardening book that displays great literary ability when compared with the writings of some of the older and more severely practical authors. As instances, it is only necessary to mention such interesting works as Dean Hole's "Our Gardens," Ellwanger's "The Garden's Story," Canon Elacombe's "In a Gloucestershire Garden," "E. V. B.'s" "Days and Hours in a Garden," and numerous others of a similar type, which it would have been agreeable to have included. But it must not be forgotten that the line had to be drawn somewhere, and that the primary object of the compiler was to deal only with books on a definite subject, and that therefore many otherwise excellent and interesting works had necessarily to be excluded on account of their going, more or less, beyond the scope allotted.

So, too, with the Rose, which, having already had a bibliography of its own, has consequently been omitted. And the same remains to be said of all serial publications, such as the *Floral World*, the *Florist*, the *Floricultural Cabinet*, the *Midland Florist*, the *Florist's Journal*, and many other serials devoted to the florist's art.

It has not been deemed necessary to state sizes Many of the works mentioned are mere pamphlets, while others, of course, are bulky volumes. Every work mentioned may be considered as octavo in size or smaller, unless where specially mentioned. In those cases where a

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C. HARMAN PAYNE.

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(To be continued.)

TREE FERNS IN NEW ZEALAND.

(Continued from page 175.)

IN height the Tree Ferns vary from a few feet up to 40 feet or 50 feet, but the greater number probably average 15 feet or 20 feet in height, while the fronds measure 10 feet to 15 feet, giving a spread of some 30 feet in diameter. Even when amongst them it is difficult to realise their size, but I measured a frond at random of a tree growing on a bank at the roadside close to Pipiriki House, the hotel where we stayed some 55 miles up the river, and I found it to be 14 feet 3 inches in length, while one of the pinnae, similarly selected, measured 35½ inches. As some of the visitors at the hotel were inclined to doubt the accuracy of my measurements, I personally conducted a small party of them to the spot and gave them ocular demonstration of my correctness. All these Ferns were *Cyathea medullaris*, but in the bush I saw some groves of *Dicksonia squarrosa*, and no doubt there are other species also.

On our second day we proceeded some ten miles further up the river, but as the water was lower than it had ever been known to be for over forty years, we had some difficulty in getting up the rapids which occur at irregular intervals. Most of the way we travelled above Pipiriki the river flows between cliffs of pupa rock crowned with bush, with various shrubs clinging to the sheer face for some distance down, intermingled with the Drooping Flax (*Phormium Colensoi*) and a broad-leaved liliaceous-like plant, which was apparently one of the Cyperaceae, probably *Cladium Gunnii*, though I was unable to determine its exact character; also with pendent Ferns, which lower on the cliff took complete possession. The most common was a very large form of *Lomaria procera*. Amongst the shrubs was a *Coprosma* of striking appearance, owing to its abundance of bright red berries. Lower down, within the reach of ordinary floods, there was little but Mosses growing, though amongst them were numerous dwarf plants of *Veronica cataractæ* in flower. Even here the Tree Ferns were not absent, for wherever a recess in the cliffs had permitted an accumulation of detritus there they flourished, and on a ledge of the cliff, where there seemed to be but little space for them, two sturdy specimens had established themselves. However they attained the size they had done with such scant sources of nourishment was a mystery. We visited a cave in the cliffs, through which flowed a considerable stream, which dropped in a fine fall at the back. Here we found a handsome creeping herbaceous plant (*Elatostema rugosum*), with rather striking digitate leaves, scrambling over the steep banks at the entrance.

Next day we returned to Wanganui, seeing new beauties on the way, really the same we had passed coming up, seen from a different point of view. Tall Lombardy Poplars at some of the villages raised their spires of brightest gold against the green wooded background of the hills, others close at hand showed no touch of autumn, while others, still green in the main, appeared to have been liberally dusted with gold. Small enclosures of Maize waved their tasselled plumes beside smaller plantations of broad-leaved Tobacco, which the natives grow for

their own use; but the product, to the European taste, owing to defective curing, is vile in the extreme. From the bush now and again a Nikau Palm (*Areca sapida*) peered forth, and by the riverside behind the Willows the glossy dark green foliage of the Karaka trees (*Corynocarpus laevigata*), laden with their bright Orange fruits as large as medium-sized Plums, formed a conspicuous object.

In due course I again reached Wanganui, more than ever impressed with the idea that he who desires to see Tree Ferns in their glory must visit the Wanganui River. I may add that on a previous visit I had attempted to penetrate one of the Fern Tree groves I have mentioned, expecting to find a spacious open place roofed with the wide-spreading fronds, and carpeted with Ferns of lowlier growth, which its appearance from the river suggested. The roof was there, but in place of the carpet there was a tangled

by Mr. Burbidge of Trinity College Garden, Dublin. This is distinct and beautiful. When well grown it assumes the proportions of a good-sized shrub. This is the case in Hyde Park just now, where Mr. Jordan has plants grouped in the grass on gently sloping banks in association with the old *Cassia corymbosa*. The *Calceolarias* and the *Cassias* have been grown and trained in column fashion, and are about 5 feet high and about 2 feet through. They are both in splendid foliage, and well flowered from base to summit; the orange of the *Cassia* flowers harmonises well with the rich and lighter yellow of the *Calceolaria*. The effect is decidedly attractive and novel, and a pleasing contrast to the well-flowered columns of *Heliotrope* plants planted in the same way within a short distance of them. T. E.

SWEET VERBENA.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—The illustration represents a sweet-scented Verbena tree (*Aloysia citriodora*) in our garden. The plant has been outside for some years, and



THE SWEET VERBENA (ALOYSIA CITRIODORA) AT BONCHURCH.

growth of dense scrub, laced with innumerable creepers, including the "Bush Lawyer" (*Rubus australis*), through which it was well-nigh impossible to force one's way, so that I gave up the attempt.

Dunedin, New Zealand. A. BATHGATE.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

BEDDING CALCEOLARIAS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Your correspondent "H. P." on page 135, has done useful service to gardeners by drawing attention to three excellent and comparatively little-known bedding *Calceolarias*, *C. integrifolia*, *C. amplexicaulis*, and Jeffrey's hybrid. I should like to supplement this list by including *Calceolaria Burbidgei*, a hybrid raised from *C. Pavonii* and *C. amplexicaulis*

we do not cover it in the winter; in fact, its height would make it almost impossible to do so.

C. H. FEILDEN.

Thorncleft, Bonchurch, Isle of Wight.

ILLICIIUM ANISATUM IN JAPAN.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—*Illicium anisatum*, Linn. (*Illicium religiosum*, Sieb. and Zucc.; Japanese name, Shikimi), of which you reproduced in your No. 1,753, June 24, a small branch with flowers, is an evergreen belonging to the family of the *Magnolia*. It grows all over South and Middle Japan, and is perfectly hardy here near Yokohama. It is one of our earliest blossoming shrubs, flowering together with the *Corylopsis spicata*, *Forsythia suspensa*, *Pyrus*, &c. What you mention about the shrub in the little paragraph under "The Editor's Table" is not quite correct, for although the branches are used in the Buddhist religious services as ornaments, just as the branches of the *Cleyera japonica* (Japanese name, Sakaki) are used in the Shinto religious service, they are never used by the Japanese to form wreaths with which to decorate the tombs of their deceased

friends. Such a decoration as the wreath is, in fact, absolutely unknown to the Japanese in the sense in which Europeans make them up and use them for funerals, &c., and it would give an altogether wrong impression to people at home to say that the Japanese use this tree to form wreaths.

Yokohama, August 1.

A. UNGER.

PLANTS MENTIONED BY SHAKESPEARE.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In reply to the enquiry of your correspondent in last week's issue of THE GARDEN, Love-in-Idleness is *Viola tricolor*, i.e., Heart's-ease or Pansy, yellow or purple; Long Purples, *Digitalis*, i.e., Foxglove; Mary-buds, Marigold. Buckler's Berry I think may be what is known as Biscutella or Buckler Mustard, but this is surmise. For the other three names I can give authority.

Plas Isa, Abergele.

CHARLES M. PIM.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In answer to S. Lloyd's question in THE GARDEN, Love-in-Idleness is one of the many fanciful names for the wild Pansy (*Viola tricolor*). Long Purples is an old country name still in use for the purple Loose-strife (*Lythrum Salicaria*), which, when it grows on the damp margin of a stream, often has flowering spikes 1 foot long on a 3-foot stem. However, some writers do not suppose that this is the flower meant by Shakespeare, but that he was referring to the early purple Orchis (*Orchis mascula*) when he mentions Long Purples made into a garland by Ophelia. Certainly the context, "Our cold maids do dead men's fingers call them," better fits the

clammy sensation when touching the Orchis with bare hands rather than the Loose-strife. Mary-buds: This is also a subject of debate as to whether the Buttercup (*Ranunculus repens*) or the Marigold (*Calendula arvensis*) is referred to, but it is more often thought that by "Cuckoo buds of yellow hue" Shakespeare meant Buttercups, and by Mary-buds Marigolds. Buckler's Berry: As far as the present writer knows there is only one plant having the prefix Buckler, and that is Buckler Mustard, a plant not mentioned by Shakespeare, but if S. Lloyd is thinking of the words in "The Merry Wives of Windsor," "And smell like Bucklersbury in simple time," Bucklersbury was the name of that part of Cheapside where many druggists lived, and as the druggists of those days were likewise herbalists, when the bunches of Rosemary and Lavender were hung up to dry the whole street must have smelt sweet.

W. SPURLING.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In answer to S. Lloyd in THE GARDEN for the 9th inst., I think Love-in-Idleness means the *Viola tricolor*, Mary-buds the Marigolds. Buckler's Berry perhaps means the Fern.

Bourton Bridge.

H. C. ROSE.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In reply to your correspondent S. Lloyd, Love-in-Idleness is one of nearly a score of fancy names (including also Love-and-Idle and Live-in-Idleness) given to the Pansy *Viola tricolor*. Long Purples are the purple Loose-strife (*Lythrum Salicaria*), or, according to other authorities, the purple Orchis (*Orchis mascula*). Mary-buds, or May-buds, are either the Marsh Marigold (*Caltha palustris*) or the garden Marigold (*Calendula officinalis*). Buckler's Berry I have been unable to trace.

L. BARRACLOUGH.
Woodford.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—(1) Love-in-Idleness is unknown by all commentators. It is probably either an old legendary plant, unknown at present, or it is a "figment of the dreamy poet's brain." (2) Bucklersbury is a district in London, and not a plant at all, as an intelligent reading of "The Merry Wives of Windsor" would show. In the days of Gerard and the herbalists Bucklersbury was the quarter of the chemists who, "in simple time," sought out rare and medicinal plants in woods and fields near London, and who compounded their own essences from their gleanings. The scents of the drying herbs gave the Swan of Avon the saying "to smell like all Bucklersbury in simple time." (3) The Long Purple is the early purple Orchis (*Orchis*

mascula) of meadows and woods. (4) Mary-buds: These are probably members of the great *Ranunculus* family.

Clarewood, Bickley.

SYDNEY MARTIN.

NICOTIANA SANDERÆ.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I am afraid I rather agree about *Nicotiana Sanderæ*, and I am inclined to think it is a sluggish grower, and wants a cool house rather than out of door culture. I sowed a packet of seed in heat in February. They did not do very well, so I sowed a second lot that did better. Those planted out in May are not in flower yet, though they are now—the 8th inst.—showing bloom, their humbler relations planted at the same time have been in flower two months. The *Sanderæ* received marked care and attention. I have potted up three plants and put them into the greenhouse, and they are evidently much better pleased.

A. DE L. L.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—When I read your correspondent's letter a few weeks ago about his disappointment in *Nicotiana Sanderæ* I quite agreed with him, but since then have found out that it is an excellent plant to cut for the house. The red blossoms make a beautiful bit of colour, and they last a long time in water, looking particularly well when arranged with white Japanese Anemones and a few Teazles.

Gillingham.

MAEL A. GORDON DILL.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I was glad to read in the pages of THE GARDEN a few words of praise on the above, and I can endorse all the remarks about it on page 156. I consider it a perfect gem of the *Nicotiana* family, as it can be used inside or outside with effect, and the colour with me is good. I enclose flowers.

Woolland, Dorset.

J. HARRIS.

[The flowers sent were a good, deep colour.—ED.]

RECENT GARDEN PEAS.

EVERY year large numbers of new Peas are introduced, and this is hardly to be wondered at when one considers what a valuable and important vegetable it is. It is most interesting and instructive to examine at one or two periods in the year a large number of trials such as were carried out this year at Wisley in the gardens of the Royal Horticultural Society, though, owing to various causes, the growth was not so satisfactory as one could wish. This, no doubt, will be rectified in the course of a year or two, as the land becomes better cultivated. One is enabled to make comparisons both with newer and older varieties, and many, though bearing different names, are practically one and the same thing.

The improvement is most noticeable in early and mid-season varieties, both in size of pod and quality, but there is yet room for several good late sorts, with a constitution like Autocrat, and it is rather surprising, with such a splendid parent to work from, that this has not been accomplished.

Though very dwarf Peas are not great favourites of mine, I made, during the present year, a rather large trial of what I believe to be the earliest and best, sowing them under glass in boxes and planting them out on a south-west border.

CARTER'S LITTLE MARVEL was distinctly the earliest, being fully a week before any other. This is rightly named; it is the most prolific variety I know for a dwarf Pea, and the flavour is very good indeed for so early in the season. We picked our first dish on May 22, and it grew to a height of 2 feet 6 inches. A distinct and valuable addition as a dwarf variety.



PEA GLORY OF DEVON.

SUTTON'S MAY QUEEN.—Height 2½ feet to 3 feet, sometimes a foot higher on good ground. It is a splendid early variety, good for small gardens, a great cropper, and of first-class flavour.

CARTER'S MAY FLOWER.—Height from 1½ feet to 2 feet. I have grown this for two seasons, and am particularly pleased with it. It is a vigorous grower, a great cropper, and the quality is splendid. This was the result of a cross between Daisy and William Hurst.

WEBB'S NEW LEADER.—A somewhat taller variety, height from 3 feet to 4 feet, and a very heavy cropper. Very quick to mature.

EDWIN BECKETT.—This is now generally well known; it needs little description. Suffice it to say it is a great improvement on the Gradus type, and as an early exhibition Pea it is unsurpassed.

Two excellent new main crop varieties have been raised by Mr. G. Hobday of Romford, one of the most enterprising amateur vegetable gardeners of the present day. One he has named

ESSEX RIVAL, which, I believe, will be distributed by Mr. R. Sydenham. This is a first-class novelty, height about 5 feet, a great bearer, quality first rate, one of the best either for exhibition or general use. His later novelty is

ESSEX WONDER, and is one of the few varieties which received an award of merit from the Royal Horticultural Society on July 4 of the present year. It stood out in the trials very conspicuously. It undoubtedly possesses a very robust constitution; the pods are produced in great quantities, and are well filled with large, delicious Peas. It will make a grand exhibition variety.

WEBB'S NEW KAISER is a thoroughly distinct and valuable variety, a strong grower, and prolific bearer. The pods are a splendid colour, and it is valuable for exhibition and home use.

SUTTON'S PEERLESS MARROWFAT.—When seen at its best this is grand for exhibition. The pods are large, well filled with fine-looking Peas, which when cooked are a beautiful colour and fine flavour.

QUITE CONTENT is a new and very distinct variety, the parents being Alderman and Edwin Beckett. I do not hesitate to say this is the finest main crop variety yet seen. It is a very vigorous grower, attains a height of from 5 feet to 6 feet, and the quality is first rate.

GLORY OF DEVON.—This variety received an award of merit in 1899. It grows to a height of from 4 feet to 4 feet 6 inches, and has a good constitution; the pods are very handsome. A fine late exhibition variety. An illustration is given on page 190 of this excellent garden Pea; it is one of the most generally useful.

CARTER'S BATTLESHIP is one of the most distinct Peas of recent introduction, and valuable for small and large gardens. The pods are always well filled, and it is seldom attacked by mildew. This resists drought almost better than any variety I am acquainted with. Height 5 feet.

Among the most popular of the latest Peas, Autocrat, Gladstone, and Webb's Masterpiece still hold their own. Unfortunately, the variety Gladstone is not of the very best quality, neither is the constitution so good as the other two, but its taking appearance ensures it a place as an exhibition variety.

WEBB'S MASTERPIECE is a greatly improved form of Autocrat, a variety I can most strongly

recommend for both small and large gardens and any locality. It is a most prolific bearer and resists drought better than any variety I know.

E. BECKETT.

Aldenham House Gardens, Elstree.

NOTABLE SCOTTISH GARDENS.

ST. MARY'S ISLE, KIRKCUDBRIGHT.

AMONG the most charmingly-situated estates in the south-west of Scotland is that of St. Mary's Isle, Kirkcudbright, the seat of Captain Hope, R.N., and for long that of the Earls of Selkirk. The present family succeeded to it by inheritance on the death of the late earl without issue. The mansion was only built by Captain Hope in 1897, but the property has long been known by its present name, and there formerly stood in the grounds the old priory of St. Mary's Isle, which was founded in the reign of David I. by Fergus, Lord of Galloway. St. Mary's Isle is also well known as having been one of the scenes of the exploits of Paul Jones in the year 1798, when, in command of the American privateer *Ranger*, he visited it for the purpose of carrying off as a prisoner the Earl of Selkirk. The estate is an extensive one, and comprises what was formerly an island in the estuary of the river Dee. There are distinct signs of the old beach now elevated above its former height; and a portion of the estate is protected from high tides by embankments. Stretching out into the estuary with a south exposure and in a proverbially mild locality, St. Mary's Isle is admirably suited for the cultivation of somewhat tender plants. The same influences lead to its being exceptionally early, even for the district, with the result that in spring its woods are bright with Snowdrops and Daffodils long before others in less favoured parts. The late Earl of Selkirk took great interest in beautifying St. Mary's

Isle, while the Countess, now resident at Balmae, in the immediate neighbourhood, has always been an ardent admirer of flowers and trees. The present owner, Captain Hope, is equally interested in horticulture, so that Mr. Jeffrey, the present head gardener, who entered upon his duties about five years ago, has had a good basis to work upon, and has every encouragement from his present employer.

A delightful avenue passing through a park of great beauty, particularly when the Hawthorn is in bloom, but interesting at all times if only because of the fine timber everywhere, leads to the mansion, whence, passing through beautifully wooded grounds and past the site of the old garden, we come to the present one. At the entrance archways of Roses, with clumps of Bamboos and other plants and tasteful flower beds, bright from earliest spring, are the earnest of the greater wealth of flowers beyond. Beside the gardener's house is a wall with Arabis, Myosotis, and other plants on the top. The wall of the house is draped with climbers, principally with Roses. Here is *Rosa gigantea*, transferred from the mansion, with a colder exposure, where it did not succeed; it gives every promise of doing well here. Here is a fine specimen of *Rose Gloire de Dijon*, from which flowers are generally cut in April. By the wall are Bamboos, while between are large clumps of *Kniphofias*. There are here and elsewhere in the gardens large clumps of tree *Pæonies*, and a number of the newer varieties have been planted recently. Several good plants of *Buddleia globosa* do remarkably well, and are very free flowering. Hardy *Fuchsias* are in considerable numbers, and do well in this district. So do some of the hardier *Cistuses*, and there are good plants of such as *C. laurifolius* and others. Throughout the grounds there are many good shrubs, both deciduous and evergreen, and one seldom sees such good plants of *Ruscus Hypophyllum* and *R. aculeatus*. *Rhododendrons* are very fine everywhere.

Undoubtedly one of the leading features of St. Mary's Isle is the culture of Roses. Among them are represented some of the old, old Roses, but there are hundreds of the newer varieties, as well



ROSE-COVERED SHELTER AT ST. MARY'S ISLE.

as beds of Moss Roses and a hedge of Penzance Briars. On walls, arches, pillars, and in beds they meet the eye everywhere, while in that part of the garden in which the glass structures stand long sloping banks are covered with Rose trellises. The Maréchal Niel does well outside also, and probably no garden in the South of Scotland possesses so many Roses of almost all classes. The herbaceous borders are very extensive. It would be tedious to select among the herbaceous plants, but it will suffice to mention that the best of the early, mid-season, and late flowers are cultivated, and that the garden is hardly ever without bloom at any time of the year. Nor are alpine plants neglected, for, in addition to those in the borders, a considerable number are grown in a rockery near the glass houses. A number of flowers suitable for cutting are grown in beds in the reserve garden, and are a great advantage. *Thalictrums*, grown for their foliage alone, may be mentioned.

acaulis at its best. The glass is not very extensive, but it is of good construction. The fruit department indoors receives adequate attention, as could be seen from the crops of Grapes,

Passiflora princeps and the *Bougainvilleas* do better than in a higher temperature. In another house were plants of a good strain of *Gloxinias*. A small collection of *Cattleyas*, *Lælias*, *Dendrobiums*, *Odontoglossums*, &c., is grown. In the stove were a number of the usual plants, the flowers of the single and double *Hibiscus* being very showy, and in the fernery, which has lately been remodelled, *Rex Begonias* on the wall and *Ruellia macrantha* were noteworthy among the Ferns. One cannot omit to mention some of the yellow *Callas*, such as *Pentlandi* and a few others. Seedlings are being raised, and there is every prospect of some good forms among them. Vegetables receive their due attention. It is impossible to condense adequately in a short space



the many attractions of St. Mary's Isle to a horticulturist. S. A.

CANNA NIAGARA.

CANNAS are among the showiest of flowers for the summer garden and for the greenhouse, so that a good new variety is welcome. *Canna Niagara* is one of the

finest yet sent out. The colour of the flower is scarlet with a rich yellow border; the plant is of dwarf habit. This variety was shown by Messrs. Cannell and Sons, Swanley, Kent, before the Royal Horticultural Society on the 29th ult., and then received an award of merit. Messrs. Cannell make a special feature of the culture of Cannas.

A NEW WATER LILY.

A new Water Lily was shown at a meeting of the Royal Horticultural Society on the 29th ult. by Lord Rothschild, Tring. It is a handsome rose-coloured variety of the blue-flowered *Nymphaea zanzibarensis*, and is called *N. z. rosea*. It was awarded a first-class certificate by the floral committee.

Not the least delightful features of St. Mary's Isle are the paths which lead to the old orchard and among the woods. The old orchard trees are carefully preserved, and are a picture of beauty in their seasons of bloom and of fruit. The wild garden contains large masses of *Snowdrops*, *Daffodils*, *Scillas*, and other flowers. *Martagon Lilies* are freely naturalised in the woods. There are thousands, principally of the old purple *Martagon*, but with a number of the white varieties among them. One observes, in going through the orchard, a curious old *Ribston Pippin Apple*, believed to have been planted there when the orchard was formed about 160 years ago, and in the woods a noble *Tulip Tree*, dwarf though it was compared with the magnificent *Beeches* and other forest trees which abound. A singular feature here is a very old *Robinia* or *False Acacia*, which was blown down some years ago. As it could not be lifted, its branches were covered with soil, and it has lived and now covers in its prostrate position nearly a quarter of an acre of land.

Near the glass houses there was last season a delightful series of beds of spring flowers; *Tulips*, *Myosotis*, *Polyanthuses*, *Wallflowers*, *Daisies*, and other spring plants were used. There was a capital lot of *Gentiana*

CANNA NIAGARA. (About one-half natural size.)

Shown by Messrs. Cannell and Sons, Swanley, before the Royal Horticultural Society, on the 29th ult., and given an award of merit.

Peaches, *Figs*, &c., in the houses. The conservatory is kept bright with flowering and foliage plants. Noticeable here were good examples of an excellent strain of *Calceolarias*. In this house

BEAUTIFUL WAYS OF PLANTING HARDY SPRING - FLOWERING BULBS.

FIRST PRIZE ESSAY OF AUGUST COMPETITION.

NEVER in the history of gardening has there been such a wealth of spring-flowering bulbous plants at the disposal of the planter, and it only remains for him to make a proper use of the material at hand to add greatly to the beauty and interest of the garden. Some of the departments worthy of thoughtful treatment are the woodland and wild garden, the shrubbery border, the hardy flower border, the rock garden, &c. Of exceptional value are the banks and slopes that abound in a garden of the picturesque type, and in a hilly district some excellent effects may be secured.

We will take the woodland first, associating with it the wild garden. For these the Narcissus is of the greatest value, as it is, indeed, in all gardening in grass with bulbous plants. In the woodland proper, where grassy walks abound, and where Hazel, Hornbeam, and such like form the undergrowth, the way in which the leaves drift near the undergrowth in autumn will prove an excel-

lent guide to planting. Where evergreens, such as Laurels, abound, their sombre tones will be relieved by grouping such bicolor Daffodils as *Empress* or *Horsfieldi*, or even the May-flowering *N. poeticus* or its variety *N. p. ornatus*. In the woodland, too, the common Lent Lily *N. pseudo-Narcissus* and *N. princeps* give a pleasing result, the latter being particularly good in grass. In park and pasture land one must emphasise the greater value of the single *Incomparabilis* kinds by reason of their stature and graceful bearing. Thin planting is to be preferred at the start rather than over-dense masses that in a year or two may become crowded and weakened, thereby falling in wet seasons long before their beauty is past. Of dwarf subjects, and where the turf is not too strong, the Wood Anemone (*A. nemorosa*) and *A. apennina* make delightful carpets of white and blue respectively. The deep or rich yellow of the varieties of *Narcissus odoratus* should not be overlooked, while *N. Johnstoni* Queen of Spain is often better suited in grass than in a border of richer soil. One other group worthy of special note is the Snake's-head *Fritillaria* (*F. Meleagris*

in variety), whose drooping, chequered blossoms are singularly beautiful as seen in grass or woodland. All these should be planted with a free hand, yet entirely without formality. Pretty effects are secured in park or pasture where Oak or Ash exist by treating the ground about the bole with yellow Crocus, Snowdrop, or *Chionodoxa Luciliae*. The two last named may be mixed. The planting should extend to nearly 30 feet, and preferably not all round the tree.

The Shrubbery Border, or the borders adjacent to the carriage drive, may also be treated on the same lines. Some of the best plants to increase the interest here are Dog's-tooth Violets (*Erythronium*), Winter Aconite (*Eranthis*), and in

dwarf Campanulas, Androsaces, &c., may be given an added charm. A patch of *Anemone scythica*, coloured blue externally and pure white within, 3 feet wide, in a sunny position, would make a delightful picture. The same plant or the Grecian Wind-flower would be equally beautiful as a groundwork in the peat bed where *Azalea mollis* is grown. Snowdrop, Snowflake, and Glory of the Snow should all be found here.

The Rose Garden.—On the bare surface of Rose bed or border the boldest Daffodils, as *Emperor* and *Sir Watkin*, should be seen in profusion. Stately Darwin Tulips should rise from near the Lavender bushes fringing the pathway, and the fragrant Heavenly Blue Muscari border the pergola-covered way. In

The Hardy Flower Border, Daffodils, Cottage and Parrot Tulips, Crown Imperials, &c., should be planted among such things as *Pæonies*, *Montbretias*, *Lathyrus*, *Sunflowers*, and the later-coming Lilies, while Bluebell and Squill, Crocus and Daffodil, *Anemone*



NYMPHÆA ZANZIBARENSIS ROSEA. (Slightly reduced.)

Shown by Lord Rothschild (gardener, Mr. Dye), Tring Park, at the Royal Horticultural Society's meeting on the 29th ult., and given a first-class certificate.

sunny positions the Grecian Wind-flower (*Anemone blanda*), without doubt one of the most precious of spring flowers. The common Snowdrop and Elwes' Snowdrop may be freely planted here also, and for later flowering, where dark-leaved evergreens abound, the Post's *Narcissus* or White Wood Squill (*Scilla campanulata alba*) will prove most suitable.

The Rock Garden, by associating the early bulbous Irises, as *I. reticulata*, *I. Histrio*, *I. Heldreichii*, *I. persica*, and others, with such alpine plants as *Primula viscosa*, Alpine Pinks,

and *Ranunculus*, may add their quota of beauty in every available spot. The rich blue *Scilla campanulata major* and Snowdrop should be freely dibbled among the hardy Ferns to give flowers when the Fern fronds show tenderest green, and, again, are russet brown.

Flower Beds.—Here the scarlet Tulip should spring from a mass of white *Arabis*, yellow Tulips be planted with Pheasant-eye *Narcissus* among *Saxifraga hypnoides*, and so on. The following are a good selection of single Tulips, flowering season commencing in mid-April: *Rose Gris-de-lin*, *Goldfinch*, *Waterloo* (scarlet), *Yellow Prince*, *Alba regalis*, *Artus* (crimson), *Standard Silver* (red and white), *Chrysolora* (yellow), *King of Yellows*, *Duchesse de Parma* (red bordered yellow), *Keizerskroon* (scarlet and yellow), and *Thomas Moore* (orange). The first is 8 inches high, the last 12 inches, the others are between in the order given. Hyacinths suitable for massing are—*Blue*: *King of Blues*, *Baron van Tuyl*, and *Czar Peter*. *White*: *British Queen*, *Mont Blanc*, and *Mme. Van der Hoop*. *Red*: *Gigantea*, *Gertrude*, *Etna*, and *Prince Albert Victor*.
E. H. JENKINS.

GARDENING FOR BEGINNERS.

SIMPLE HINTS.

WHY STRAWBERRIES FAIL TO FRUIT.—Over-luxuriance is a common cause of failure in Strawberries. They require a deep, well-worked soil. The land also should be in what is called good heart, without being heavily manured, at the time of planting. They may follow Onions or early Potatoes which have been planted on land that has been trenched and manured in winter, and when the Onions or Potatoes come off the manure will have become mellow and blended in the soil. Land of this character, after receiving a dressing of lime and soot or bone-meal and being forked over, will be in a suitable condition for Strawberries. Planting in rich soil before consolidation has taken place produces immense foliage, but the crowns fail to ripen and the plants become what is termed "blind." The same cause operates in the case of plants in pots when they are potted loosely in very rich soil, which often causes the crowns to split into two or more crowns, none of which is productive of fertile blossoms. Land that will grow good Wheat, Beans, or full crops of vegetables will, if well cultivated, grow good Strawberries. Place the manure over the bottom spit when trenching to draw the roots downwards. It is the deep-rooted plants which stand drought best and bear the heaviest crops of fruit. The Strawberry is in a sense a surface-rooting plant, and may be fed on the surface, but its roots will also run down if permitted and encouraged. It is the deep roots which keep the plants going in a dry summer.

Gathering Apples.—The question of keeping Apples well is largely affected by the method and the time of their gathering. If the fruits are gathered before they are ready, and if they are bruised in being transferred from the tree to the storeroom, it is unreasonable to expect them to keep well. Before gathering the Apples from a tree it is an excellent plan to cut open a few of the fruits and examine the pips. If these have changed to a brown colour you have an indication that the fruits may be gathered. If, however, the pips are still of a greenish white tinge the Apples must be left longer on the tree. Those gathered before they are ready never reach the full flavour that should characterise them, and they are almost certain to shrivel. Many are often misled by seeing that a small number of the Apples have fallen, and consequently presuming that all the fruits are ripe. Of course a rough wind will bring down Apples sometimes, but most of the early ones that fall will be found to be unsound. The only sure way to find out if they are ready or not is to examine them as stated.

Manure for Roses.—The beginner in gardening may be forgiven if at first he fails to grasp the fact that the Rose is a gross feeder, and yet the Rose often fails when its roots come in direct contact with manure. The Rose, like all other plants, likes to hunt for and find its own food. It is the correct thing when trenching land for Roses to place a layer of cow or pig manure on the bottom spit, and it will do no harm if taken direct from the yard and buried deeply in the land; but in manuring the upper stratum of soil the manure should be decomposed and thoroughly blended with the soil, so that the roots may have a chance of selecting their food, as they can only utilise it in a liquid form in small quantities. When the Rose, though in a sense a gross feeder, is planted in manure, failure more or less complete

must ensue. But though we do not plant in manure, it is well when planting to have a barrowful of good compost handy, made up of good loam mixed with a little old manure and a sprinkling of bone-meal well blended, and place a shovelful round the roots of each plant. They will show by their growth that they appreciate this kindness. There would be less mildew, fewer insect attacks, and no premature deaths if this system of planting was always carried out. Most of our failures occur from this neglect, or failing to grasp the importance of small details in carrying out our work. We find this out in



SPRAY OF ACHILLEA THE PEARL.

time through our failures, but we should save ourselves a good deal of trouble and anxiety if we learnt at the beginning.

Mildew on Roses.—In some gardens, especially those of small extent, where matters of this kind are often left to run their course, mildew of late has appeared in an overwhelming form. In bad cases the real remedy is to lift the plants at the proper season, improve and deepen the soil, and replant. In the meantime, destroy the mildew by repeated syringings of Bordeaux Mixture, or cover the affected parts with black sulphur, repeating the process so long as a speck of mildew remains.

The Orange Fungus is a different species, and the only known remedy is to pick off the affected

leaves and burn them. I have known bad cases cured by painting the branches in winter with a strong solution of Gishurst Compound, and following out what I believe to be the principal remedy for diseases of this character—of deepening and improving the soil, dealing liberally in the way of manure with the bottom spit in trenching.

Cockscombs (Celosias) as Bedding Plants.—The brightest beds in Hyde Park just now are those in which Cockscombs are planted. The *Celosia plumosa*, both yellow and red, is very effective, and the bed where the real Cockscombs in various colours are planted is quaint and bright. It is a break away from ordinary bedding plants. There is a spice of novelty in it, and it is attractive at this season, when the Geraniums are almost flowerless. The Cockscombs are easily raised from seeds in the cucumber frame in March and April, and when well grown they are good plants for the conservatory.

Achillea The Pearl.—The Sneezewort, as *Achillea Ptarmica* is popularly known, is a valuable late summer-flowering perennial. The variety *The Pearl* is an improved double form, and is a valuable plant for cutting at this time of the year, the small double flowers being very freely produced. The habit of growth of this plant is rather straggling, and, if neglected, it is apt to become untidy.

Olearia Haastii.—This is a most useful shrub, principally because it flowers late in the summer when most flowering shrubs are over. The flowers are white and are most freely produced. On a well-flowered plant they almost hide the foliage. It is a New Zealand plant, and there is found growing at an altitude of from 4,000 feet to 5,000 feet. In the South of England it is quite hardy, but in northern gardens it needs shelter during severe frosty weather. A large bed of it, when the plants are in full flower in August and September, is very effective.

Mildew on Chrysanthemums is a disease with which growers of these plants have to contend, although it seems to attack those large-flowered varieties which are housed under glass before the blooms open more than the early-flowering sorts which are grown in the border out of doors. A good mixture with which to syringe the affected plants is sulphide of potassium. It is made by dissolving 1 oz. of sulphide of potassium (liver of sulphur) in a quart of hot water, diluting it with 2½ gallons of water. It is as well to cut off and burn the leaves or shoots most affected.

The Scarborough Lily.—There are few more popular flowering plants suitable for room or window culture than the Scarborough Lily (*Val-lota purpurea*), and, as we are often asked to say how it should be grown, we give the following hints. It is a curious fact that the best specimens of this plant are not to be found in the greenhouses of large gardens, but in cottage windows. This cannot be because it is not worth growing, for at this time of year its handsome richly-coloured flowers are greatly admired. As soon as the plants have flowered less water is needed, for its season of active growth is over for a time. It is from the moment new growth commences that great care is necessary, so as to enable the plant to develop a strong and healthy bulb. If re-potting is necessary it should be done then. Even while at rest the soil must not be allowed to get really dry, for it always needs a certain amount of water. A good potting compost may be made of loam and leaf-mould, sand

and charcoal being added. A shelf in a greenhouse is an excellent place in which to grow the Scarborough Lily, for there it gets plenty of the sunshine that it likes. Overpotting is an evil that should be guarded against. The fine plants one may sometimes see in cottage windows are rarely repotted, and there is no doubt that much of their success is due to the fact that they are rarely disturbed.

The *Austrian Pine* is one of the most useful trees we have. For effect, shelter, suitability to various soils and situations, or for seaside planting it is invaluable. The timber is tough and resinous. Its dark glossy green foliage renders it valuable for producing a striking effect in the distance. As a shelter tree and one for seaside planting it is well known. It not only withstands the sea winds well, but its strong, close foliage makes an excellent protection for less hardy plants. It grows well in even the poorest soil.

GARDENING OF THE WEEK.

FLOWER GARDEN.

RECENT storms and gales have caused much damage throughout the country, and have considerably added to the flower gardener's labours and troubles, for many of his cherished plants have been badly knocked about, twisted, and broken, necessitating re-staking and tying. It is yet comparatively early, and one reasonably expects a continuation of autumn bloom for some time. With this end in view *Lilium* (*auratum* and *speciosum* vars.), late *Gladioli*, *Hyacinthus candicans*, *Lobelia fulgens* and varieties, *Salvias*, and early *Chrysanthemums*, together with the host of herbaceous plants, both hardy and tender, that bloom during late autumn must be specially attended to. Various climbers on walls, pillars, &c., have also in many instances broken loose from their supports. Do not delay in making them fast and secure, for swaying back and fro in the wind is most detrimental to their well being.

MESEMBRYANTHEMUM SPECTABILE.—Cuttings of this bright succulent are produced freely at this season, and those growing in a dry, sunny position will be firm and in perfect order for inserting in boxes filled with sharp, gritty material. Placed on a shelf near the glass in a cool house, or even a dry cold frame, and kept dry until callused, every scrap will root and produce other cuttings for spring propagation. It is a fine plant for massing in the rock garden in dry sunny spots, forming welcome bits of bright and pleasing colour during a dull season of the year.

VERONICAS.—The hybrid *Veronicas*, although not as hardy as one would wish, are so attractive in the autumn time that a number of cuttings should be struck annually, for even if the plants are killed outright after one season's bloom the labour incurred is repaid. The end of the present month is a suitable time to propagate them. Prepare a site in a cold pit. Provide drainage by laying a foot deep of rough clinkers or any coarse materials, covering with coal ashes, on which put a layer that will be 4 inches thick after being well trodden of fine light suitable rooting medium, and dibble in the cuttings—short, firm, stubby shoots—3 inches apart; water well to settle the soil about them; put on the lights both to keep the cuttings from flagging from exposure and to ward off heavy rains and snow, and protect from frost. Examine occasionally and pick off damped leaves. They require no further attention until the spring, when they will be found to be well rooted, fit to put out in nursery lines preparatory to being planted where intended to bloom. The species are also most useful for rockeries, especially the dwarf ones. The diversity of foliage alone is remarkable and very interesting. They strike root freely under similar conditions to the hybrids, and should be more extensively grown than has been the case hitherto.

Look carefully over stock of the earlier cuttings of *Geraniums* and other bedding and soft-wooded plants generally, making good any failures that may have occurred by propagating more before it gets too late in the season, and any shortage in the number of the earlier cuttings must be made up without delay, available material usually being plentiful towards the end of September. Select a plot or bed in a position fairly sheltered from north-easterly winds, but clear of overhanging trees, for cuttings of choice hardy shrubs that must be put in shortly, and prepare by bastard digging and thoroughly working the soil into fine tilth, and free from all noxious weeds.

J. ROBERTS.
The Gardens, Tan-y-bwlch, North Wales.

INDOOR GARDEN.

FLOWERING TREES AND SHRUBS FOR FORCING.—It is time these were looked over, and those well furnished with buds set aside for forcing. The remainder can either be planted out in the reserve garden or replanted in the ashes and grown on for another year. Those well set

with buds in the reserve garden may be lifted and potted up. Several well-known nurseries make a speciality of flowering trees and shrubs for forcing. By ordering a few annually a good stock of useful stuff can be easily maintained. *Dicentra* (*Dielytra*) *spectabilis* and the herbaceous *Spiræas* (*Astilbes*), which were planted out in the open after flowering in pots in the spring of 1904, may be lifted and potted up when the foliage has died off.

CHRYSANTHEMUMS.—Within the next few days it will be advisable to house the majority of these plants, especially those grown for large flowers, if not already done. The late varieties can remain out of doors for some time, to keep them back as much as possible. A sheltered spot in the garden can usually be found for them, or a light framework may be fixed up, over which covering can be run if frost is at all likely. In housing the plants avoid overcrowding; rather risk some plants outside than stand them too thickly in the houses and lose the bottom leaves. Open the ventilators wide for a time till the plants become used to their different surroundings. Fumigate several times before the buds are too far advanced.

LILIU HARRISII.—Importations of these bulbs having arrived, sufficient of this variety may be procured and potted up for very early work. For the main batch, however, *L. longiflorum* and the varieties *eximium* and *giganteum* are more to be relied on, but importations of these do not usually arrive till the end of the year.

HOUSING PLANTS.—It is rather cold in the frames, unless they are heated, for winter-flowering *Carnations* when the buds are bursting. Select a house in which to put them where plenty of air can be given, avoiding draughts. *Primulas* will also be better in a house on a light shelf near the glass. *Ericas*, *Epacris*, and other hard-wooded plants should be housed without delay. The recent heavy rains are very detrimental to their well-being. Artificial heat will not be required at present, and when given should only be sufficient to maintain a minimum night temperature of 40° Fahr.

GENERAL REMARKS.—Insert cuttings of Ivy-leaved *Pelargoniums* for flowering next summer, potting them off when rooted, and growing on through the winter. *Mignonette* sown early last month will soon be ready for potting on. Thin gradually till the desired number is left in a pot—one, three, or five. Stand close to the glass in a cool house or pit. Seeds of choice varieties of *Antirrhinums* can be sown in a cold frame. Of very easy culture, they will be found useful in spring, especially for houses with no artificial heat. Seeds are to be had in separate colours—red, yellow, pink, and white—or mixed. With the approach of winter succulents will need less water. In winter they are better if given only sufficient to keep them from becoming dust-dry.

ERRATUM.—On page 163 of the issue for the 9th inst., under the heading "Indoor Garden," the first line on Ferns reads "plenty of sports from the common varieties." It should read "plenty of sportings from the common varieties."

Royal Botanic Gardens, Kew.

A. OSBORN.

ORCHIDS.

CATASETUM, *CYCNOCHES*, AND *MORMODES*.—These deciduous plants are usually looked upon as merely "curious" or botanical Orchids, and are discarded by many Orchid cultivators, but where a fairly representative collection is grown, some of them will be in bloom during July, August, September, and October, and there are few other Orchid genera which afford more interest to visitors than these. Undoubtedly many of them are very curious and extremely interesting, but some of them, as *Catasetum Bungeorthii* and its several distinct forms, *Cycnoches chlorochilum*, *C. versicolor*, *Mormodes luxata*, and its ivory white variety *eburneum*, produce very handsome flowers, and are, with the following sorts, well worth including in a general collection of Orchids: *C. tabulare*, *C. viridiflavum*, *C. barbatum*, *C. b. spinosum*, *C. russellianum*, *C. macrocarpum*, *C. flumbriatum*, *Cycnoches egertonianum*, *C. e. viride*, *C. maculatum*, *C. peruvianum*, *C. pentadactylum*, *Mormodes Buccinator*, *M. Rolfei*, *M. pardina*, *M. p. unicolor*, and *M. colossus*. Some of the flowers are very sensitive, ejecting their pollen at the slightest touch. Several of the varieties have flowers which are deliciously scented, which, therefore, have a special decorative value. When well grown, some of them, especially the *Catasetums*, after producing their first flower spikes, frequently send out others a few weeks later, but for the future well-being of the plant it is advisable to pinch these later spikes off immediately they appear.

These plants, as they pass out of bloom, or those which have finished their growth without flowering, should be suspended in the lightest and driest position in the East Indian house, or they may be removed to a similar position in the Mexican house, where the extra ventilation would be advantageous to them. To preserve these plants and keep them in good condition, it is necessary at this season to expose them to direct sunlight, so as to harden and mature the latest made pseudo-bulbs before winter commences. While the leaves remain fresh afford the plants plenty of water, especially on bright sunny days; but so soon as the leaves begin to turn yellow, the water supply must be gradually reduced, and when they fall off, the pseudo-bulbs, if well matured, will need no more water for a period of several months. If during the resting season any of the plants show signs of shrivelling a little water may be given occasionally to preserve them in a sound plump condition.

Such plants as *Chysis bracteosa*, *C. laevis*, *C. aurea*, *C. Sedeni*, and *C. Chelonii* should, now that they are finishing up their growth, be afforded plenty of water at the root, and be gradually exposed to full sunshine, and when the new pseudo-bulbs are fully ripened the same kind of treatment as advised for the *Catasetums*, &c., will

suit them. The *Pleiones* also will require plenty of light, and also air, but it is not necessary to dry them up to induce them to flower, the compost should be kept moist until the flower-buds show, when water should be discontinued. The *Dendrobiums* must be frequently looked over, and those plants that have fully completed their growth should be attended to as previously advised in a former calendar. The same temperature must still be given to such late growing species as *Dendrobium brymerianum*, *D. Bensoniæ*, *D. Parishii*, *D. albo-sanguineum*, *D. Lowii*, *D. flumbriatum*, *D. Dearei*, *D. dalhousianum*, &c. Plants of

VANDA CERULEA that are now opening their flowers should be placed where they may obtain plenty of light and air, and be kept fairly moist at the root until the flowers open. The strong growing *Angraecum eburneum* is now sending up its flower-spikes, and the plant should be in the warmest house where it can obtain plenty of light without direct sunshine. The surface of the sphagnum moss should be kept thoroughly moist until the flowers commence to open, when it should be gradually discontinued.

Burford Gardens, Dorking.

W. H. WHITE.

FRUIT GARDEN.

PEACHES AND NECTARINES UNDER GLASS.—Trees in the early house should now be showing signs of shedding their leaves. A few Birch twigs drawn lightly over the branches from the base upwards will dislodge the leaves if the wood is properly matured. No effort should be spared to have the wood on early trees well ripened before the house is started, or failure is sure to result. A little heat in the pipes will be of assistance in maturing unripened wood. See that the roots are well supplied with moisture. Diluted farmyard drainings will greatly benefit trees which are in good fruit-bearing condition. Late trees which have been cleared of their crops should have all the old fruiting wood cut out, except that which is needed for extension. Use every means to ripen the wood. Well wash the trees with the hose pipe. Should red spider be present, syringe with a strong solution of soft soap and sulphur. Water healthy old trees with liquid manure.

YOUNG TREES.—Recently planted trees need less water now than hitherto. Syringing must be discontinued, and the atmosphere kept dryer so that the wood may have every chance to ripen. Do not allow the roots to suffer for want of water, but indiscriminate watering at this season will only tend to swell the wood, which is already strong enough. Moderate well-ripened wood is more to be desired than rank pithy growth, which is detrimental to perfect training. Young trees should be carefully examined, and any ties which have become tight should be cut. The time is at hand for the lifting and root pruning of trees which are in need of it. Young trees should be root-pruned every year till they have got into a good fruit-bearing condition, when their treatment in this respect will not need to be so drastic, although their roots should never be allowed to enter unhealthy subsoils, which is one of the direct causes of bud dropping. Trees which have made gross wood should be lifted, and all strong fleshy roots should be cut well back. Endeavour to keep the roots near the surface, and guard against planting too deep. In filling in the soil bear in mind that it is impossible to make it too firm, mixing plenty of old mortar rubble with it. On no account should the bulk of soil be added to till the trees begin to bear good crops of fruit, and it can be seen they are in need of it. It is astonishing what fine crops can be had from trees which have a very restricted root run. There is far more harm done by giving them too much soil than otherwise.

E. HARRISS.
Fruit Department, Royal Gardens, Windsor.

KITCHEN GARDEN.

CABBAGES.—These useful vegetables since they appeared above ground have grown rapidly, and should now receive attention in the way of stirring the surface of the soil around them and pulling out weeds if they abound. Directly the young Cabbage plants have attained the height of 3 inches or 4 inches they should be carefully pricked out on a border, where they are to be nursed until they are sufficiently large to admit of being planted on their permanent ground. Owing to the recent rains in some localities a number of the plants may be of sufficient size to be transferred direct to their permanent quarters. If so, a good clump of the best seedling Cabbage plants may be carefully lifted, selecting the best plants for the permanent quarters, the smaller ones to be pricked out on the nursing bed. The latter should be planted 3 inches apart each way, the former about 18 inches apart each way, and, of course, alternately. Another method that I have frequently adopted, and which has been productive of good results, is to plant the strong plants where they are to grow and the weak plants between them, to be lifted and planted elsewhere next spring. The advantage of this will be patent to all; being in the same rows they have ample shelter, and should any of the permanent plants fail the one next it can take its place. Frequent dustings of soot are most beneficial to young Cabbage plants, either in the seed-beds or on the Cabbage plots.

CAULIFLOWERS, like the Cabbages, require careful attention in the way of pricking them out immediately they are ready to be wintered. A common practice is to winter young Cauliflower plants in hand-lights. In some instances this proves successful, but as a rule it encourages damping, simply for the want of air on the ground level, the only method of airing plants grown in hand-lights being from the top by tilting the covers. I find it best to set apart a cold frame for wintering Cauliflower plants, using soil that is not too rich, making it rather firm and not planting them too thickly in the frame, quite

5 inches or 6 inches apart each way. A liberal amount of air is essential when the weather will permit. For a few days after they have been planted in the frame they are greatly benefited by keeping them on the close side until they become accustomed to their new quarters, shading only during very bright sunshine. After that the frame sashes may be dispensed with until cold weather sets in.

ONIONS.—The main crop of these indispensable roots are now ready for drawing. Choosing a fine dry day for the job, start at one side of the Onion plot by cleaning a strip of ground parallel with the rows to lay down those about to be pulled with the bulbs towards the sun. Remove all soil adhering to their roots, at the same time keeping all the varieties separate, also those that are thick at the neck. As these seldom keep well they can be used first, and very small bulbs may also be kept separate for pickling purposes. With a view to getting the Onion crop dried as quickly as possible they should be frequently turned. Directly they are thoroughly dry they can be removed to some open, airy shed, to lie until some wet day, when they can be strapped and hung up, labelling each variety as the job proceeds, so that the desired variety may be procured when wanted.

JAMES JEFFREY.

The Gardens, St. Mary's Isle, Kirkcudbright.

THE FRUIT GARDEN.

SOME GOOD SEPTEMBER PEARS.

OF late years some valuable additions have been made to early autumn Pears, and these we have given a trial sufficiently long to test their merits by the side of older sorts. They are well worth attention by those who require early dessert Pears of the best quality. On our light soil early Pears are very good. The following are our best varieties this season:

Dr. Jules Guyot.—This year, when many others have failed, this Pear has been very good. I admit the trees are on a south wall, but even on this aspect, some of our good, reliable later trees are quite barren. Dr. Jules Guyot in many respects resembles Williams' Bon Chrétien, but with us it is a longer fruit, better, and a regular cropper. The tree, grown well in any form, is very prolific, and it appears to stand spring frost better than some kinds. We have Marie Louise and Pitmaston Duchess without a single fruit. It is a compact grower, the fruits are very handsome, large, and good. As a cordon it is wonderfully prolific on the Quince.

Marguerite Marillat.—This is usually most reliable as a bearer. This year it is not equal to

the first named for crop, but, as I have stated previously, the season is very bad in this respect, and Marguerite Marillat, grown as a cordon, has been very good. Trees in the open have had a thin crop. It is one of the most handsome of the September fruits, and well worth a warm wall. It is very large, with juicy flesh, and much sweeter than many others. It is early and a free grower, the tree making an upright growth, a most valuable addition to the fruits at this season.

Michaelmas Nelis.—A Pear certificated as recently as 1900, but a most valuable late September fruit. In the North it would not be ripe till early October, but, given a wall, it is ripe here before Michaelmas. It is not a large Pear, but quite large enough for dessert, and its great value is in its delicious flavour. It is certainly one of the best in its season; a free grower, and a variety that promises to make a valuable pyramid. As a cordon it is excellent.

Petite Marguerite.—I do not class this Pear as equal in several respects to those named above, and I can scarcely say it is one of our best September fruits, but cordon fruits this year were really good, and I think it is worth culture. The fruits are medium-sized, pretty, with a red cheek on greenish ground, and a very long stalk.

Triomphe de Vienne.—This is one of the older Pears, but well worth a place in all gardens for crop and good quality. A large, handsome fruit of delicious flavour if gathered at the right time. If the fruits are not gathered early, but are left too long on the tree, they decay at the core, and the flavour is impaired. It requires double grafting to do well. With us this season the crop, though light in places, is better in quality. The tree makes a good bush or pyramid. As a standard I do not advise it, as the fruits are small and less useful.

Souvenir du Congrès.—This season the fruits of this variety have been better than usual, and much earlier; indeed, we gathered this variety in August from cordon trees. Like the last named, it requires good culture and double grafting to be a success. With us it rarely fails as a cordon, and is a most useful early September Pear. In a warm season such as we have had the flavour is excellent. I need not describe it, as it is an old and well-known variety.

Fondante d'Automne.—Also a Pear well known, but one of the most useful late September sorts grown. In many gardens it is considered an October Pear; with us wall fruits are ripe by the third week in September, or earlier at times. On the Quince stock, as a bush or pyramid, it is most prolific; medium-sized, and a delicious fruit.

Beurré d'Amanlis.—This, though last on my list, is one of our best as regards crop, and the flavour is agreeable. Grown on the Quince and in the open in bush or pyramid form the fruits are, in a good season, well flavoured. It often crops when others fail.

Middlesex.

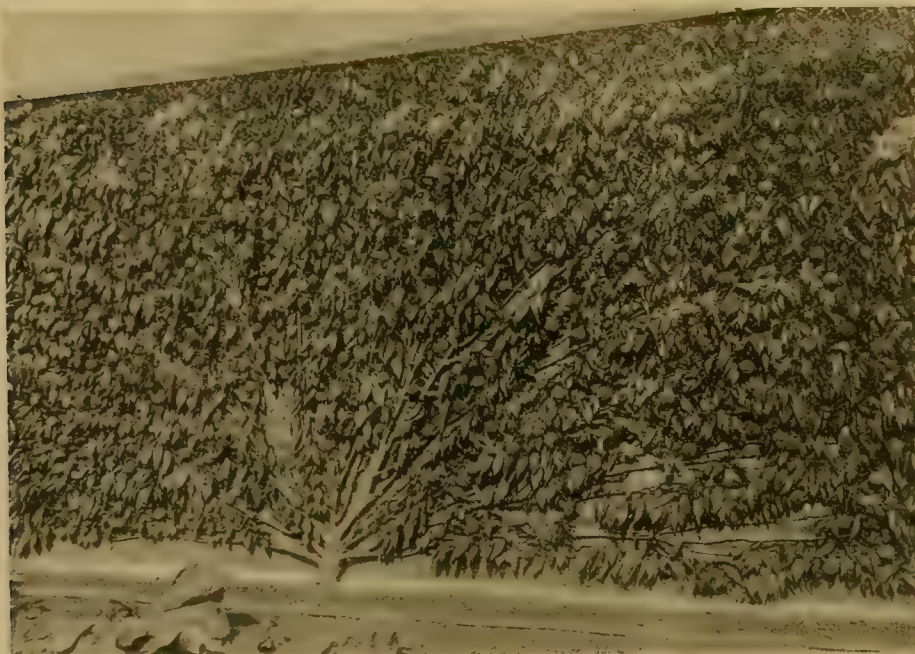
G. WYTHES.

HOW TO GROW PEACHES.

NOT only is a well-grown and well-balanced tree, like the one illustrated, pleasant to look upon, but, commercially, it is a valuable asset for any garden, whether the fruit is consumed at home or grown for sale. Those curious to know the value of such a crop as this tree is carrying can find this out for themselves by counting the fruit and reckoning each fruit to be worth at least sixpence. Many beginners in the art of fruit culture and amateurs would, no doubt, feel very proud were they successful in growing such a specimen. This is not difficult provided one gives the small amount of labour necessary. The most important matter is to attend to details at the right time. These we will give as shortly as possible.

The wall should be from 9 feet to 12 feet high. Whether the wall be that of a garden, house, or any other building does not matter as long as the aspect is south, south-east, or south-west, but preferably south, and, of course, in a part of England where the Peach succeeds out of doors on a wall, and this it will certainly do in any part south of the Trent. The Peach will succeed in any good garden soil, but to grow it to perfection it must be planted in prepared soil composed as follows: A barrowload of turfy loam cut from an old pasture field, the grass being closely cut off before it is dug up. Cut these turves into pieces of about 4 inches square. To every barrowload of this add a gallon of quicklime, a gallon of quarter-inch bones, and a peck of old mortar and brick rubble broken small. Mix thoroughly well together from a fortnight to a month before it is wanted. If the subsoil is of gravel, sand, or of any other open material, no artificial drainage is necessary. On the other hand, if it is clay or any other close substance through which water will not percolate freely, then artificial drainage must be provided. If the trees are to be planted in the ordinary soil, let this be trenched at least 2½ feet deep over a space of 16 square feet, adding to it in digging one barrowload of manure and a peck of lime. If planted in the prepared soil, dig out the old soil to a depth of 2½ feet over the same area (16 square feet), see that the drainage is good, and fill up with the new soil, pressing it in moderately tight at the same time. The best time to plant is the end of October, but, if not convenient to plant at this time, planting may take place any time between this and the end of January. Before planting the strongest of the roots should be slightly cut back, and all torn or jagged points of any other roots also. Plant deep enough only for the stem of the tree to be in the ground 3 inches. Disentangle the roots before planting, and lay them out with their ends turned slightly up. This will tend to prevent their going down to the subsoil, and encourage them to form plenty of fibrous surface roots instead, which is the great point to aim at. The soil should be placed over the roots with the hand, pressing it firmly as the work proceeds. As soon as planted the tree should receive a good watering.

The tree may be bought as a maiden—simply one upright shoot—for a few pence, but the amateur, even with the most explicit explanation, would be much puzzled to understand how to manage this shoot in order to lay a proper



A TYPICAL FAN-TRAINED PEACH TREE.

foundation for a good tree. It is more satisfactory to buy from a nurseryman a one year old trained tree, with the framework already formed, and which may be purchased for a few shillings. This tree consists of a short, upright stem, with two or three branches growing at nearly right angles on either side of it. The branches are the foundation from which all other branches will spring, and now we come to the very important part of the work in the formation of the tree, namely, the

Pruning. These branches are from 2 feet to 3 feet long. The lower one should be cut back to within 15 inches of the stem of the tree, the second one 1 foot, and the top one 9 inches. The best time to carry out this pruning is any time early in December. In due time in spring a number of young shoots will proceed from these cut-back branches. As soon as these are large enough to handle and it is possible to distinguish which are the strongest, all should be rubbed off each branch excepting three—one at the base of the shoot on the under side, one in the middle on the upper side, and one at the extreme end (this is termed the "leader"). Thus rubbing off the young shoots is a form of pruning called disbudding. The three young shoots will form branches in the course of the summer 2 feet or 3 feet long. Upon them many flower-buds as well as wood-buds will form. When the time of pruning comes round again—say, in December—these in their turn must be cut back, but not so short as the first, merely cutting 6 inches or 7 inches from the point of each shoot. In the spring they must be disbudded as soon as the buds are about a quarter of an inch long, again leaving three buds only to grow into shoots—one at the base, one in the middle, and one at the end, the same as before, only the base bud this time had better be left on the top instead of underneath. The young shoots will develop into strong ones, and by the end of the summer will probably be 3 feet or more long, so that at the end of the second year after planting the tree will cover a considerable extent of wall. The same process of disbudding and extension of the branches must be continued until the tree has filled its allotted space.

The fruit is always produced on the shoots of the previous year's growth, so that the shoots produced the first year after planting will bear a number of flower-buds as well as fruit-buds, and fruit in due time will follow these flowers. The young trees may be allowed to carry a moderate crop the second season after planting, a heavier crop the third season, and afterwards a full crop. As some guide as to what a full crop means, I may say that one fruit to each square foot of the tree's surface is considered a good crop, but on very robust and healthy trees a heavier crop than this may be allowed. The Peach invariably sets far more fruit than it can bring to proper size and maturity, therefore thinning must be resorted to. This should be carried out at two different times; the first as soon as the fruit is the size of a small Pea, all the smallest being picked off first, leaving a liberal proportion to be thinned after the fruit has passed through the stoning period. Often at that time the tree will cast some fruits. The stoning takes place when the fruit has attained the size of a small pigeon's egg. The fruit swells better in early summer if left unexposed under the partial shade of the foliage, but when it has attained to nearly its full size towards the end of June or the middle of July it should then be as fully exposed to the influence of air and sunshine as possible in order to develop the highest colour and flavour. This is best done by placing a short and light piece of wood underneath the branch on which the fruit is growing, and thus bring it towards the light. The leaves also should be pushed away. Ripeness will be evident by the high colour of the fruit and by the softening of the flesh near the stalk. Immediately the flesh yields in this part when touched it is time to gather the fruit. Take hold of it gently with the fore finger and thumb,

handling it most carefully. It should part from the stalk easily; if it does not, do not use undue pressure, but leave for another day or two. Be careful not to bruise the fruit when handling. Place it in a basket previously lined with wood wool covered by tissue paper, and never let one fruit touch another if it can be avoided. In two or three days after gathering they will be ready for dessert. Should they be intended for sale or to be sent away some distance by rail they must be gathered two days earlier.

The simplest and most effective way of protecting the blossom from frost is by hanging a net of double thickness on the tree, leaving it there until the fruit is set. The net should not press against the tree, but should rest on some poles placed against the wall for its support. During the height of summer in hot weather the trees should receive a soaking of water about every ten days. Give liquid manure in a diluted state from the cow or stable yard at every alternate watering. Insect pests are often very troublesome and destructive, especially black and green fly in early spring when growth commences, and if not destroyed as soon as perceived will do irretrievable damage to the young shoots in a very short time. The best way to prevent their attacks is to syringe the wood in winter as soon as the leaves are off with a solution of Gishurst's Compound, and again at the end of February, shortly before the trees come into bloom. Keep a watchful eye on the trees in case of an attack, and syringe again if necessary. Red spider is sometimes troublesome, but with effective watering, syringing, and a mulch of manure placed over the roots on the surface of the soil as far as they extend will secure immunity from this.

The principal pruning should take place at the end of the summer as soon as the fruit is gathered. This consists in cutting out the shoots which have borne fruit and tacking loosely into their places sufficient of the current year's growth. Secure only as many of these as will furnish the tree all over with fruitful wood for next year's crop, but do not overcrowd the tree with branches. In winter the branches of the tree may be nailed to a wall with cloth shreds in the old-fashioned way or tied to wire trellis fastened to the wall. In any case they should be looked over before being fastened, and any barren wood cut out and any surplus shoots thinned out, bearing in mind that at least 3 inches or 4 inches space must be left between the bearing shoots when they are finally tied up. The main branches should be trained obliquely, as shown in the illustration. The best six varieties in the order of ripening are Amaden June, Crimson Galande, Alexandra Noblesse, Violette Hâtive, Princess of Wales, and Late Devonian. If one variety only can be grown, I would select Violette Hâtive. The same treatment suits the Nectarine. OWEN THOMAS.

ANSWERS TO CORRESPONDENTS.

VARIOUS (Veld).—Of Longpod or Broad Beans for cooking there are none better than Early Longpod, Johnson's Wonderful, and Green Longpod. Possibly you gather too old to secure the best flavour in these Beans. Leek plants from an autumn sowing invariably bolt to flower the following year. To have strong, early Leeks, sow seed in a pan under glass in February and grow them on, planting outdoors in May. Even these will sometimes bolt also. Onions and Leeks are very diverse species of Allium. Your Peas-good's Nonsuch Apple trained against a high wall has a badly-furnished stem, and should have had side shoots on it from the bottom upwards. You have done right to shorten the lower side shoots to 3 inches, and in the winter may find it desirable to shorten a little more. The two top shoots may be left long for the present

if you wish them to extend the tree. If you do not, then cut them back as the rest are. A single cordon tree should have one leader only, and that be cut back to one-half its length each winter.

INSECTS ON APPLE TREE (J. G. Wilson).—The insects which have reduced the leaves of your Apple tree to skeletons are the young caterpillars of a moth, one of the Bombycina, but they are so young that I cannot say to what species they belong. I am sorry to say that after examining the caterpillars I threw the leaves away, and on re-reading your letter, I saw your remark as to the insect in the large leaf. Please accept my apologies for my carelessness. If you would kindly send me another leaf I will gladly tell you what I can about the insect.—G. S. S.

CATERPILLARS IN PEAT (A. Walsh).—I am sorry to say that the little caterpillars you found in the peat are unknown to me, and I have not had the opportunity of finding out what they are, but I will do so and let you know as soon as I am able to do so. They are no doubt feeding on the roots of living grasses which were growing in the peat. If you placed the peat where poultry could scratch it over they would soon pick out the caterpillars.—G. S. S.

TULIPS (A. E. G.).—Yes, it is true that Tulips may be carefully lifted from the flowering beds shortly after flowering and laid in the reserve garden to complete their ripening. Not all spring-flowering bulbs may be so treated, however, and among those that endure it with impunity we may mention tuberous-rooted Anemones and Ranunculi. It is not safe to practise it upon the Daffodil or Hyacinth; that is to say, these will not endure it in the same degree, though it is to some extent adopted for convenience.

BEST DESSERT PLUM (W. T. Fuller).—If you propose confining the space to one variety of Plum we should plant the Old Greengage. Three fan-trained trees would soon fill this space at 10 feet apart. Three year old trees are the best to plant. Should you wish for more variety, and to extend the season during which fruit may be had ripe, we should plant Denniston's Superb Gage, which is an early one, Old Greengage, and Golden Transparent Gage, a late variety of great excellence.

TRENCHING GARDEN GROUND (T. G.).—We can hardly give you more concise information on this subject than that by Nicholson, who says that in commencing to trench a piece of ground the soil for about the width of 3 feet should be dug out a spit or more deep along one end, and wheeled to the opposite end where it is intended to finish. The depth which should be taken out varies according to the nature of the subsoil. If this is unfit to bring to the surface it should be dug and still left at the bottom. Another width should then be marked out and the top spit of soil turned over to take the place of that wheeled away, the bottom (subsoil) being in its turn treated like the first, and so on. When the soil is good enough to allow of the bottom spit being brought to take the place of the top, the first trench must be taken out to the full depth and the bottom broken up. Trenching invariably deepens and improves garden land, but it is not always advisable to bring up the bottom soil at first. This is sometimes of a nature that causes actual harm to crops, and had better be left at the bottom below the limit which the roots reach. Trenching must therefore be practised with judgment. The bottom soil may always be loosened and dug with advantage to that on the surface, and if some loose leaf-mould or light manure is mixed into that beneath during the process, it will in time improve the whole bulk. You will thus see that everything depends upon the nature of your subsoil as to whether you must bring it to the top or just dig it over and allow it to remain below.

ANEMONES ON ROCKERY (Worcester).—The position and soil should suit the Anemones you name. In most soils, however, *A. fulgens* is best if lifted annually and rested in sand for at least two months or more. This rest is desirable owing to the early restart into growth, the latter being frequently cut by frost and good flowering modified. By drying off the tubers growth is much deferred, and a better all-round result secured. Late in October or November is a good time for planting. Not much manure should be required, but such as is used should be so well decayed that it may be passed through a sieve of $\frac{3}{4}$ -inch mesh. Work it in among the soil. Plant the tubers 3 inches to 4 inches deep. Other things of a bulbous character that would be suitable are the *Triteleias*, *Chionodoxas* (blue and white), *Scillas* (of many kinds), and such *Fritillaries* as *pyrenaica*, *Meleagris* in variety, *latifolia*, *nobilis*, and even the Crown Imperials in the background. *Muscari conicum* and the Starch Hyacinths generally would be useful, together with a selection of the species of *Tulipa*, *Leucojum vernum*, and others. The *Tulipas* alone of those named would require lifting each year, and many *Irises*, bulbous kinds, would also be best so treated if employed. Three inches asunder for small bulbs, and from 3 inches to 6 inches for the larger ones.

TRANSPLANTING A TUB-GROWN CLIMBING NIPHETOS (M. N.).—You should move the plant to the outside position at once, as it would succeed much better than if left until October. Do not cut away any growths, but nail all out thinly so as to enable them to ripen well before winter sets in. Really the best time to transplant the Rose would be next May or June, for it is rather a tender variety and might feel the effects of a hard winter more severely as it has been grown under glass, but if you want the space it occupies then plant out at once. You must be careful not to break the ball of earth. If the tub is of no value, knock out the bottom and remove crocks, then set the tub in the hole already prepared for it somewhat larger than the tub. After the tub is placed in position, and of sufficient depth to allow about 2 inches of soil to remain on top of the ball, you should remove the staves of the tub very carefully. Press the soil well round the ball of earth, then fill up. Give one or two good waterings to settle the soil, and mulch with some manure well decomposed.

PHLOXES AND ASTERS (A. E. G.).—In some soils and localities *Asters*, *Phloxes*, and early-flowering *Chrysanthemums* may be transplanted from the reserve garden to the flower border quite well, but in the case of the two first-named groups some preparation would be necessary, and in any case we do not consider the *Phloxes* which flower in July would recover sufficiently to be presentable. *Rudbeckia Newmanii*, hybrid *Pentstemons*, and the *Sunflowers* of the *H. multiflorus* section could also be lifted in the same way. If, however, a good and presentable display of blossoms were essential we should prefer to grow the requisite plants in the reserve garden plunged in large pots rather than take the risk. There is not much risk attending the lifting and replanting of the *Michaelmas Daisy Asters* or the dwarf *Chinese Asters* if a good soaking of water be given before and after the work is done.

JAPANESE IRIS BY CHALK STREAM (G. R. B.)—The conditions you describe are not helpful to *Iris* culture, but as the stream is clear and you seem prepared to make up the soil for *Irises*, there is no insuperable difficulty in the way. First of all strip off all the turf and upper stratum of gravelly soil, excavate the chalk so that 3 inches of water covers the site from the river, return the turf and gravel to the bottom, thus making the bed level with that of the river. You will now want a layer of good meadow loam or garden soil 12 inches thick over the whole of this; failing this, all the turf and gravelly soil (in about equal proportions) you can collect; that will give you the required depth of soil for the *Irises*,

trusting to a good manurial mulch to keep the plants going from year to year. Plant before winter if you can, and acquire goodly clumps that will have a fair chance to grow and flower well the first season. Weakening plants are sure to fail on account of the chalk. Do not bury the plants too deeply. Give them plenty of soil below the roots and only a thin layer as a surface-covering, and if soil is scarce plant on wide mounds and allow the water to circulate around them. You can fill up the intervening waterways whenever more soil is available. The water is not such an essential condition as a good depth of rich soil at any time with *Iris Kämpferi*, and particularly on a chalky subsoil.

WHAT TO DO WITH PANSY CUTTINGS DURING THE WINTER (M. K. B.).—You do not say what the type of Pansy is you wish to propagate. Assuming the type to be the Tufted Pansies (*Violas*), we should be disposed to make up a cutting-bed in a southern aspect, raising the surface a few inches above the garden level. Ten-inch boards should be securely fixed about the cutting-bed, this being all the protection that is really necessary to raise a sturdy batch of plants. However, should your Pansies belong to either the show or fancy type of these flowers they should be given the protection of a well-ventilated cold frame. The latter types of the Pansy are not so hardy as those of the Tufted Pansy, and in consequence they will not withstand the trying climatic conditions usually prevailing in this country. All the same, do not coddle this subject. They are all very hardy, the Tufted kinds partaking of quite an alpine character, so sturdy and hardy are most of them. We cannot advise you regarding the *Ranunculuses* unless you can tell us to what species they belong.

RUNNER BEANS FAILING (J. H.).—That your Runner Bean bloom should fail to set seeds after you had treated the plants so well is difficult to explain. A deep trench opened, amply manured, thin sowing, liberal waterings, and overhead sprinklings ought to have produced a very plentiful crop of pods. It is so generally everywhere. No doubt your garden is much enclosed and the position hot. When Beans are given deep soil and ample room, as yours were, we really have no other reason to explain failure to pod than dryness at the root and atmospheric drought. Did your waterings really suffice to thoroughly moisten the soil 2 feet in depth? In hot, dry weather good growers not only soak the soil once a day, but they well syringe the rows both night and morning. When that is done a plentiful crop never fails to reward their labours. They usually select a fairly open site, clear of trees, and where air circulates freely.

LEAVES DISFIGURED (T. W. H.).—The Balsams are badly attacked by yellow thrips, a minute, almost microscopical insect, whose ravages are greatly on the increase. Like the other and better known thrips, anything approaching starvation at the roots, combined with a dry atmosphere, is very favourable to the development of these pests. Such being the case, the present dry summer has led to a great increase in their numbers; but in any case, they usually assert themselves most strongly during the months of July and August. Under glass, if too dry an atmosphere is maintained, they often work great havoc in the early spring months. For plants whose position allows of their being fumigated the XL All Vaporiser is very effectual, but one application will not be sufficient, as some eggs may escape, and the insects that hatch therefrom quickly develop. Two or three vaporisings at intervals of about ten days should be carried out. Where this practice cannot be indulged in, a liberal use of the syringe will be very beneficial. The *Begonia* leaves also show traces of these same thrips, but in a lesser degree; still, they must be present in sufficient numbers to do a good deal of damage. The large brown patches, however, look like scalds, and the texture of the leaves sent appears to be very soft, as if they

had been grown too close, warm, and shaded, in which case very little direct sunshine might cause the damage.

PLANTS UNSATISFACTORY (G. H.).—Judging by your letter everything seems to be in such a deplorable state that we are afraid the limited advice we might give you would be of little help; in fact, nothing short of an essay on gardening would be of any service. For this reason, even although we are extremely anxious to oblige all our readers, and we are pleased to give advice to the fullest possible extent, yet we feel that such a question or list of failures as yours is beyond our powers. By far the most satisfactory plan would be to enlist the services of a thoroughly practical gardener, who by going over the garden in your company would be enabled to point out the different matters in which the treatment had been wrong, and indicate the several remedies. We are sorry it is beyond our powers to do that, and feel sure you will find our advice as to a personal inspection the most satisfactory.

MULBERRY (E. H. M.).—The Mulberry likes a deep, rather light, and moist soil. In cold and wet situations, and in those where the trees suffer from drought, the fruits are very liable to drop off before they are ripe. We think the position of your tree has a good deal to do with the poor crop you are able to gather. Planted as it is on a sloping lawn, and somewhat overshadowed by other trees (whose roots would, of course, help to impoverish the ground), it is more than probable that it suffers from dryness at the root when in flower. If this occurs it is not to be wondered at that the flowers and fruits fall. When a fruit tree is in flower, and the embryo fruits are forming, it is most important that they should be well supplied with water, and especially so in the case of the Mulberry, which is particularly susceptible to extremes of either drought or moisture. As the tree is on the lawn you cannot well do much in the way of top-dressing, although a light covering of rich soil in the spring would do a lot of good, and would soon disappear if well watered. As the tree is on a bank, naturally the water runs away from the roots more or less. If you keep your Mulberry well supplied with water in spring and summer, we think your difficulty will most likely be overcome.

CANNAS AND OTHER PLANTS (A. K. M.).—We should not store the Cannas in a hot Cucumber house during the winter months, but rather in boxes or in pots and covered with soil, placing them in dry sheds where frost cannot enter, or under the stages in the greenhouse, taking care that the drip from plants when watered does not fall upon them. If they are planted in warm, sheltered situations out of doors, and are in well drained soil, they will winter safely in the open if the crowns are protected with cocoa fibre or litter 10 inches or 12 inches deep. However, it is safer to winter them as stated above. We mention this to show you that a hot Cucumber house is quite the wrong place for them. This probably accounts for yours not flowering. The Canna during summer should be planted in a somewhat sheltered spot in a rich moist soil. The seedling *Campanula pyramidalis* will not flower until next summer. This *Campanula* is a biennial—that is to say, from seed sown this year the plants will flower the next year. Pot the seedlings into 3-inch pots, and when they have made good growth transfer them into 6-inch, 7-inch, or even larger pots for flowering. You can, however, get fine plants in 7-inch pots. Some cultivators plant out the seedlings during summer and pot them up in the autumn, or even leave them outdoors all winter. It is now too late to do this, however. Keep the plants in a cold frame during the winter, and put them in the flowering pots in spring. In the final potting use a compost of half sandy loam and a quarter part each of road grit and leaf-mould. The plants need careful watering until the pots are full of roots. When the flower-spikes are showing give weak liquid manure water occasionally.

HEDGE (E. C. B.).—Of plants suitable for evergreen hedges the Yew and Holly are the very best, but their rate of progress is so slow that other subjects are often employed. For a quick-growing hedge or screen some of the conifers are well suited, the best for the purpose being the American Arbor Vitæ (*Thuja occidentalis*), Lobb's Arbor Vitæ (*Thuja Lobbi*), and Lawson's Cypress (*Cupressus lawsoniana*). All of these may be readily cut or trimmed, and form an effective evergreen screen, which may be kept at a height of 6 feet to 8 feet, or higher if required. The oval-leaved Privet, too, is a good hedge plant of quick growth, and almost indifferent as to soil and situation, while its golden-leaved variety is, at least in the neighbourhood of London, very much used for the purpose. *Berberis Darwini*, too, makes a beautiful hedge or screen, while the Laurel is sometimes employed, but we do not recommend it.

PLANTING SHRUBS (Fifty-five).—In October all the things named will transplant quite well. The Erica may be potted then or earlier or later; it is by no means a fastidious subject. The name of the plant sent is *Pyrethrum Parthenium* fl.-pl. Autumn is the best time for looking over the permanently planted stock of Montbretias, but there is no occasion to do this each year if in good ground. Retain only the best of the newly-formed corms or bulbs, and these usually are distinguished by a central growth and occasional evidences of side growth also. Plant one dozen corms over a ground area of 15 inches or 18 inches, and let them remain to the third year. They should be planted 5 inches deep in deeply-worked, well-enriched soil, and soaked with water when in their full growth in summer. The freshly-formed corms usually have a few roots upon them, while from the old or back corms the roots have perished.

CLEMATIS JACKMANI (Fifty-five).—There is a certain amount of risk to be encountered where the plant has been so long in position and now well established and, of course, deeply-rooted. We do not quite see your motive for potting the plant. It may lift and succeed if you set about it as follows: Open out a trench 2 feet from the plant and cut away any roots that appear with a sharp knife, even though these have been severed by the spade. You could also, with the trench open at 2 feet deep, cut under the plant to sever the downgoing roots. This done, fill in the trench again. At the end of February prune the plant back to within 3 feet of the ground, and three weeks later, when the new growth buds are swelling, lift the plant and replant it. The position should be ready and a hole 2 feet deep and wide made. There should exist a tuft of long, fleshy roots, which should be spread out thinly and sandy loam freely interspersed among them. Plant somewhat more deeply than formerly, and quite firmly, and syringe the stems occasionally. Give a few good soakings of water at the root also. Heat is neither essential nor desirable.

PETUNIAS AND VIOLAS (Old Griffe).—Double Petunias may be propagated from cuttings, but it is not until after they have done flowering that good cuttings can be obtained. The blooms may be pinched off and just the tips of the shoots taken out. They will then make some side shoots. The short shoots when they are about 3 inches long make the best cuttings. They should be taken off with a sharp knife, and two or three of the bottom leaves taken off close to the stem. They will root in any light sandy soil, but the best is good loam and sand in equal parts, with a little extra sand on the surface. They do best in a shady position at this time of the year, but in the spring they root freely in a warm house exposed to the sun. They may wither, but will revive again. Although the cuttings may be taken at any time, they do best in February, and, if the stock plants can be kept safely, it is hardly worth while to start before. Violas should be propagated in the autumn. The usual

practice is to cut the old plants down nearly to the ground; they will then make a fresh start, and may either be taken up and divided, bedding them in a shady position. If there is only a limited number of plants, sufficient suitable cuttings may be had without cutting the old plants back. If a frame in a shady position is available, it will be found the most suitable place for them, but many are done in the open ground. A little light sandy soil should be put on the ground, as this enables the plants to be taken up without loosening the roots. They should be bedded out as soon as they are well rooted when the weather permits.

PYRACANTHA (Berry).—The only thing we can think of is that your plants are perhaps growing too freely to fruit, in which case a little root-pruning in the winter might assist them. Again, you say nothing as to the aspect, soil, and situation of yours, so that our answer is little more than guess-work owing to such meagre particulars. If yours are in the shade and those of your friends in a sunny spot, their different behaviour would be readily accounted for.

POTATOES SCABBING (J. O. H.).—The prevalence of scab in Potatoes is one of the things which sorely puzzles growers. It is a complaint that crops up in all sorts of soils and under very diverse conditions. Scientists describe it as a fungus or sclerotium, and no doubt it is; but still, it is not clear whether this fungus is the primary cause of scab, or whether it follows on scab after the Potato skins have become ruptured by it. It is possible that your stiff soil needs the corrective of a dressing of gas lime, ordinary lime not being strong enough to destroy the fungus or whatever else in the soil may cause the scabbing. Whilst all scabbed Potatoes are quite unfit for exhibition, yet they are by no means unfit for food, as the trouble is only skin-deep. It often happens that scabbing means good quality of flesh. We have thought that there was some connexion between skin abrasions and an excess of starch granules in the tubers, the fungus preying on the abrasions.

LATE-KEEPING APPLES (W. T. Fuller).—The best late cooking Apple, we think, is Newton Wonder, a cross between Blenheim Orange and Wellington. It is a strong grower, good cropper, large size, and one of the handsomest Apples we have, and will keep until April or May. The next best, and not quite so late, is Lane's Prince Albert. For dessert the best of all is Cox's Orange Pippin. This is ripe in November, and remains in good condition for dessert until the end of February if kept in a dark, cool, and rather damp room. The next best latest to suit you, we think, would be King of Tompkins County. Then comes Fearn's Pippin, a beautifully-coloured Apple, good bearer, and of delicious flavour. The latest of all dessert Apples is Sturmer Pippin.

HEDGE FOR WILD GARDEN (Sybil A. Hoare). Our correspondent desires to know whether the Loganberry, Wineberry, or Parsley-leaved Blackberry would be a suitable hedge for a wild garden. If some sort of support were erected for them to be roughly fastened to, we think either of these would answer the purpose admirably, and, at the same time, be entirely in character with the nature of such a garden. The American Loganberry and the Japanese Wineberry bear fruit freely. By some who are partial to fruits having a distinct acidity of flavour they are appreciated as a preserve. Of the three fruits named we think that the Parsley-leaved Blackberry would prove to be the most satisfactory. This is of free and ornamental growth. It bears large, handsome fruits freely, and is useful for dessert or preserving, being sweet and of agreeable flavour. Whichever of these is selected, they should be cultivated in the same way as is usual with Raspberries; that is, all the old stems that have borne fruit this year, as soon as the fruit is gathered, should be cut down close to the bottom and cleared away from the ground, thereby giving the current season's growth every

opportunity of development and effective maturity to enable them to produce a good crop of fruit the following season. We think that a few of the wichuraiana Roses, if planted here and there among the Blackberries, would add interest and a certain wild beauty to the hedge during the summer by furnishing it with garlands of lovely blooms. These should be pruned in the same way as recommended for the berry plants, namely, the old shoots cut away as soon as they had done flowering. A proper distance apart to plant the berry plants and the Roses is 3 feet.

STORING NUTS (E. G. L.).—Walnuts or small Nuts should be so far ripe when gathered that if laid in a heap for a short time they come freely out of their outer or green coating. They should then be thoroughly dried and later put into large, clean, dry jars, and, having the mouths tied over with thick paper, be kept till wanted in a dry, yet cool place. You might try the effect of sprinkling a little dry salt amongst the Nuts in one or two jars, as that is often recommended. Unless the Nuts are thoroughly dried before being stored away, and the jars also, they soon generate mildew. Walnuts, if kept dry, do not germinate, but in time wither away. If left in their green coats they would in time rot. It is not until planted in soil whilst still fresh that germination would follow.

ROSES FOR FENCE (M. W.).—It is quite right to plant some of the wichuraiana Roses on your wire fence, for their natural pendulous habit lends itself to trailing over fences of the kind you describe. In a very short space of time you will find these Roses will almost support themselves. Four feet apart would be about the distance they require finally, but you could obtain more variety by planting 3 feet apart, and when necessary prune away such surplus growth as seems advisable. Some of the best of the newer wichuraiana Roses are: Elise Robichon, Ferdinand Roussel, E. Fortepaule, Lady Gay, The Farquhar, *Debutante, Alberic Barbier, Auguste Barbier, Rêne André, and wichuraiana rubra. Then from the Rambler section select Blush Rambler, Philadelphia Rambler, *Trier, Grüss an Zabern, Anna Rubsamen, Rubin, Waltham Rambler, The Lion, Wallflower, Una, *Climbing Belle Siebrecht, *Longworth Rambler, *Alistair Stella Gray, *Aimée Vibert, *Gottfried Keller, *Grüss an Teplitz, *François Crousse, and *Mme Hector Leuilliot. Those varieties with an asterisk would yield flowers both summer and autumn. The Irish single Tea Roses would not be suitable for this fence, but when the latter is well covered you could plant a row of them on the warmest side about 3 feet away from the fence. As the soil is light, add plenty of cow manure to the subsoil, and from May to September see that the Roses have a good supply of water and liquid manure. The plants upon such a fence should be mulched about their roots, say a width of 1½ feet each side. This would lessen the need of watering so frequently.

DAHLIAS FAILING (Dahlia).—The tubers have obviously been frozen at the crown, sufficient, indeed, to cause their ruin, and the decay of the tubers is but a question of time. It is always a risky business leaving such things in the open all the winter, and the time occupied in covering them with ashes would have been well spent in lifting them, when the roots could have been safely stored away. We do not say that Dahlias cannot be wintered in the open garden; indeed, we have a clump of Dahlia Constance that has stood out for six years without covering, save in the first two years, and until this year has done well. The position is a very sheltered one, however. Another time you had better anticipate your desire to leave the plants out and take the additional precaution of planting the crowns of the plants 6 inches below ground, covering them with ashes for the winter as well. A good way is to plant the spring plants in a deep, saucer-like cavity, having a diameter of 18 inches or more. This is a good receptacle for summer

watering on the one hand, and when the frosts come along the basin can be filled in with cocoa fibre and given a 6-inch ash covering above. You must ever be careful to cut away the old stems level to the ground, as the stems, being hollow, constitute at first hand a perfect conduit and receptacle first for wet and subsequently frost direct to the crowns. And with every precaution the risk is not entirely removed.

NAMES OF PLANTS.—*Brohins*.—1, *Griselinia littoralis*; 2, *Euphorbia cyparissias*; 3, *Aster corymbosus*; 4, *Erigeron mucronatus*; 5, *Sedum telephium*.—*Mrs. A. W. Booth*.—Rose Dr. Grill. —*Mrs. Henderson*.—Rose Homère. —*Inquirer, Goole*.—The pink-flowered plant is *Jacobinia carnea*. We cannot give the name of the variegated *Geranium*; we cannot undertake to name florists' varieties of plants. —*Sherborne*.—*Poa nemoralis*.—*Burnside*.—*Rubus odoratus*. —*Charles Thomson*.—The flowers of the *Pelargonium* had fallen, so we were unable to name them. The other plants are *Chelone obliqua* and *Phygelius capensis*. —*J. Field*.—*Tropaeolum speciosum*. —*J. S. L.*.—Most probably *Zephyranthes*. —*Mrs. Phelps*.—*Skimmia japonica* (quite hardy). —*W. S.*.—*Alyssum maritimum*. —*H. M.*.—*Veronica longifolia* var. *alba* (a hardy perennial). Pentstemons may be termed hardy perennials in the more southern and warmer parts of this country. They often get killed by wet in winter.

NAMES OF FRUITS.—*G. Mornington, Bournemouth*.—1, Apple New Northern Greening, a cooking variety, in season from now to next March; 2, Lord Suffield, also a cooking variety, best at this season. —*Kuntish Rector*.—*Beurre Sterckmans*, a variety with irregularly shaped, lumpy fruits. Possibly the fruits received some check during development, e.g., were the tree to suffer from want of water, or frost when in flower. —*W. Kilner, Myton*.—*Pear Beurre Bachelier* (dessert variety). —*H. S.*.—*Weybridge*.—Apple Emperor Alexander. —*J. Streeter, Dunsfold*.—Apple Irish Peach. —*E. H.*.—Apples: 1, Dumelow's Seedling; 2, Cox's Orange Pippin; 3, Lane's Prince Albert; 4, same as No. 1; 5, King of the Pippins; 6, Warner's King.

SHORT REPLIES.—*Fifty-five*.—The name of the Apple is *Keswick Codlin*. Does Apple Chelmsford Wonder succeed as a dwarf? Yes; this is an excellent late cooking Apple, rarely failing to produce a good crop. Does Gascoyne's Scarlet? Yes; very handsome heavy cropping variety; succeeds well in the Midlands and North. —*H. I.*.—We are glad to hear that your belief in the summer pruning of fruit trees has been confirmed by tangible results. We are firm believers in its good effect when judiciously practised; the effect being to expose those young shoots of the current year's growth (the fruit-bearing parts), by the thinning out of superfluous shoots, to the greater influence of sunshine, and a freer circulation of air, by the help of which alone it is possible to bring these and the flowering buds to the highest condition of fertility. —*J. C. B.*.—*Magnolia grandiflora*, with handsome evergreen leaves and large fragrant white flowers, would be the best *Magnolia*. Even without the flowers, which are only freely produced in the most favoured parts of the country, this is a handsome plant. Several of the numerous varieties of *Camellia* would do. For instance, *Chandleri elegans*, *Donckelaari*, and the old double white and *alba fimbriata*. *Azara microphylla*, with small dense glossy leaves and white flowers; *Bignonia radicans*, bearing orange scarlet, trumpet-shaped flowers; *Eccremocarpus scaber*; *Indigofera gerardiana*, with rosy purple, Pea-shaped flowers; and *Ceanothus azureus* are more or less uncommon climbing shrubs that would be suitable. —*North Country*.—A suitable soil would consist of loam three parts, leaf-soil or peat one part, with plenty of silver sand added. This plant grows well in a warm greenhouse, better than in a cool one. It likes plenty of air during summer; during winter it must, of course, be kept free from frost and cold, and should have a nice warm moist atmosphere in the spring when growth is beginning. It grows exceedingly well if planted in a bed of good light soil at the back of an early vine. The treatment given to the Vines suits it well. —*E. J. W.*.—*Pond's Seedling Plum* is of a dull red colour, with silvery and dark red spots and patches of brown. A very fine late sort, and a variety which attains to a great size. Flesh is yellow, very firm, flavour sweet. It is a clingstone. The variety is a great bearer, and one of the most valuable for market at the close of the season. —*H. Roberts*.—There is no doubt whatever that the sticky deposit on your Grapes and Vine leaves is the result of an attack of mealy bug, and the effect of its presence as long as there is any left will be this nasty deposit on your fruit and leaves, notwithstanding the application of insecticides. You should do your best in winter, whilst the Vines are dormant, to eradicate this pest. Wash the rods with a strong solution of Gishurst's Compound as soon as the Vines are pruned, and again in about three weeks' time (divesting the Vines of any loose bark they may have before doing so), afterwards painting them all over with clay puddle made into the consistency of thick paint. This, if applied to every portion of the Vine, will suffocate the pests during the winter. It should be left on the Vines until spring, when they break into growth, and a sharp look-out must be kept about this time for the reappearance of any that may have escaped death during winter. The roof of the viney must be well washed inside and out, and the trellis painted over with paraffin or turpentine. All the surface soil in the house should be removed to the depth of 3 inches or 4 inches and burnt, and a top-dressing of the best Vine soil procurable substituted. —*A. C. R.*.—The fruit sent was too far decayed for us to examine for the spot mentioned, but we

are quite familiar with the malady. In our experience we have found the trees on which such affected fruits were produced were never in good health, and also that spot was more prevalent on trees suffering from gumming. We have also invariably found that fruit thus affected was suffering more or less from diseased stones, giving colour to the belief that imperfect fertilisation was in some way accountable. We have no recollection of coming across fruit affected in this way when the trees were in strong and robust health. Your border being so limited, no doubt the Vines and Peaches together have very much impoverished the soil, and therefore you should endeavour this autumn to make this good either by providing an entirely new border of soil and replanting the trees, or, if this is not practicable, by taking away the surface soil as deeply as you can without injuring any roots, afterwards top-dressing with the best Vine and Peach soil at command (adding a liberal dressing of lime) to the depth of 5 inches or 6 inches above the roots. There is no other cure than by infusing more vigour into your trees. —*J. Y.*.—The Rose foliage is affected with red rust, a common disease, especially upon the leaves of Hybrid Perpetuals. Next season keep the plants frequently syringed with Bordeaux Mixture, of which any horticultural sundriesman will supply you. Commence early, soon after the foliage appears, and continue this dressing every twelve or fourteen days. The *Chrysanthemum* foliage is apparently affected with the rust, and we fear it is now too late to cure the fungus. You could possibly prevent further increase of the fungus by syringing the foliage above and beneath with sulphide of potassium. Get some hot soapy water and drop in some lumps of the sulphide. Stir well, and when the solution is of a light green colour it is ready for use. Apply with an Abol or other syringe which will eject a gentle spray, or, if possible, have the leaves washed with the solution both on the upper and under surface. —*Ethie*.—As there is no grass on the sportive stem, the only chance you have is to layer all the other grass on the plant, as the sport may appear on one of these another year. It would avail nothing to layer the flower-stem, this being only of annual growth and duration; but you may shorten it to within 6 inches of the ground in the hope of small shoots issuing from its base, and which in time may be treated as cuttings. Such sports frequently occur in Carnations, and are never seen again. Such occurrences are not uncommon, and they are inexplicable. —*Ignoramus*.—The term *Cypress* leaves the identity of the tree an open question, as this name is applied to several species of *Cupressus*, and sometimes to members of other allied genera. Most of them will bear cutting with impunity, some particularly so, and speaking of them as a class there will be little risk in cutting in your *Cypress* trees after the manner suggested by you. Early in the month of April, that is to say, as soon as the harsh winds of March are past, is a very suitable time for carrying this out. —*Fifty-five*.—The lime-wash will not damage the fruit trees, and by the time they have covered the walls the dinginess complained of will be hidden, and the lime-washing be rendered unnecessary. *Abelia rupestris* is a deciduous plant; native of China. It is usually treated as a greenhouse plant, but will succeed fairly well out of doors in sheltered positions in the South of England. The best substitute, we think, would be the hardy *Fuchsia*. It is a real good town plant, and macrostemma, globosa, gracilis, and *Riccartoni* are hardy in most places, and continue to bloom for a long time during the summer and autumn. —*John Parkes*.—We should be inclined to advise the formation of a herbaceous border, say 10 feet wide, the entire length of the right-hand portion of the ground. This will considerably reduce the grass area there, and it may be still further lessened by the formation of beds as marked on your plan. Two oval ones flanking the central round one appear to us the most desirable arrangement. These may be planted with the better flowering shrubs, say a collection of *Lilacs* or *Spiræas* in one, with hardy *Azaleas* in the other, and the central one *Rhododendrons*. If summer-bedding plants appeal to you, the grass plot No. 2 offers a suitable spot for a few simple beds, or instead of ordinary bedding plants they may be planted with *Roses*. In front of the hedge, shutting off the tennis lawn from the house, a wide border of flowering shrubs, faced with perennials different from those in the border at the right of the house, would be always beautiful, and take off a good deal of grass. —*W. Price*.—The recognised *Shamrock*, and the plant supplied to the troops in South Africa, is *Trifolium minus*. Other substitutes are *T. procumbens*, *T. filiforme*, *T. repens*, and several of the *Oxalis*, including the native *Wood Sorrel* (*O. acetosella*). —*Blue Beard*.—The little black flower you sent to us has few points of merit. As a garden flower it is useless for an effective display. Such flowers are to be had in abundance from a packet of seed of some of the Continental Pansies, and few of the plants can stand our climate in the South. For show purposes it is not worth growing. Tufted Pansies are hybrids of Pansies and alpine Violets. The term "tufted" has been very properly used to distinguish plants of a spreading habit from plants with single erect stems. Sometimes the two forms of habit occur in the same family; for instance, there are *Violas* that are tufted and *Violas* that are not. The German, French, and other Pansies in our gardens do not spread at the root as the Tufted Pansies do. Plants of this tufted habit are often a mass of delicate rootlets even above the ground, so that they are easily increased. Hence when older Pansies die after flowering, those crossed with the alpine species remain like true perennials, and are easily increased. It is now agreed by botanists that all cross-bred garden plants—including Tufted Pansies, of course—should have popular English, not Latin names. "Bedding *Violas*" is a vulgar compound of bad English and bad Latin, whereas "Tufted Pansies" is a good English name with a clear meaning.

SOCIETIES.

ROYAL HORTICULTURAL SOCIETY.

FRUIT AND VEGETABLE COMMITTEE.—SEPTEMBER 12. PRESENT: Mr. Owen Thomas (chairman), Messrs. T. W. Bates, George Woodward, H. Parr, George Kell, William Pope, Horace J. Wright, John Basham, H. Markham, J. Lyne, G. Reynolds, J. Willard, J. Jaques, T. Arnold, H. Somers Rivers, and W. Poupard.

Messrs. H. Cannell and Sons, Swanley, Kent, exhibited a splendid collection of their selected Ailsa Craig Onions. One hundred and thirty bulbs were shown, weighing in the aggregate 3 cwt. The heaviest bulb weighed 3½ lb. Cannell's Defence Cabbage was also well shown by the same firm. Silver-gilt Knightian medal.

Mr. G. Gumbrell, gardener to J. Westmacott, Esq., Widbury, Ware, exhibited a small collection of Potatoes, Tomatoes, and Peas, the latter being very good. Bronze Banksian medal.

Mr. George Kelf, gardener to Miss Adamson, South Villa, Regent's Park, showed a collection of Melons and a box of Coe's Golden Drop Plums, the latter picked from a pot tree. All these fruits were grown within two miles of Charing Cross. The Melons were chiefly of the variety Regent's Park, raised by Mr. Kelf, which obtained an award of merit last year. It is a handsome well-netted fruit, scarlet flesh, of medium size. Silver Banksian medal.

Captain A. E. Speer, Sandown Lodge, Esher, (gardener, Mr. P. H. Perry), exhibited a small collection of ornamental Gourds, many quaint varieties being represented. Silver Banksian medal.

H. F. Walker, Esq., Highley Manor, Balcombe, Sussex (gardener, Mr. J. Coles), exhibited a collection of excellent Plums, Peaches, Figs, Nectarines, &c. All were very good specimens. Silver Banksian medal.

Messrs. James Veitch and Sons, Limited, Chelsea, showed a very interesting collection of herbs and their Runner Bean Hackwood Park Success. Burnet, Bush Basil, Peppermint, Tarragon, Summer Savory, Rue, and Balm were included.

Mr. A. C. Roffey, 55, Church Road, Croydon, showed seed Cucumbers Ruffey's Improved Telegraph and Sutton's Best of All Tomato.

Mr. J. Read, Cadbury House, Ealing, exhibited a very pretty Bean called Golden Carmine; the pod had a pale yellow ground colour, heavily splashed with carmine.

S. Heilbut, Esq., The Lodge, Holyport, showed some excellent pot-grown fruits of Apple Ribston Pippin.

James Calverhill, Esq., Crichness, Widmore, Kent, showed a very long Marrow called Lucche Lunghe.

Messrs. James Veitch and Sons, Limited, Chelsea, exhibited a collection of Tomatoes from the open ground. Whole stems were exhibited to show the cropping qualities. Some of the heaviest croppers were Winter Beauty, Frogmore Selected, New Dwarf Red, Burns' Superlative, and of yellow sorts Golden Jubilee and Golden Nugget.

Messrs. Harrison and Sons, Leicester, exhibited Tomato Leicester Prolific (a good variety for exhibition), Harrison's Nugget Potato (a new early white kidney variety), Early Marble Turnip, Early Market Carrot, and Selected Scarlet Runner Beans.

Messrs. Peed and Son, West Norwood, S.E., showed a small collection of Apples, Pears, and Tomatoes grown within seven miles of Charing Cross.

NEW FRUITS.

Plum September Prolific.—A pale yellow cooking Plum, a very free cropper. Shown by Mr. W. Poupard, Twickenham. Award of merit.

Several new Melons, Apples, &c., were shown, but no further award was made. Mr. A. R. Mountford, gardener to the Duke of Fife, East Sheen, sent fruits of Peach Balter, said to be a week later than Sea Eagle and of better flavour.

CACTUS DAHLIA TRIAL AT WISLEY, SEPTEMBER 15.

Present: Messrs. William Marshall, George Gordon, James Walker, H. J. Jones, William Howe, Edward Mawley, and E. H. Jenkins.

The following Cactus Dahlias were awarded each three points, being judged from the garden or decorative standpoint:

Arab.—Crimson-maroon, the flower-heads appearing well above the foliage.

Aunt Chloe (Baxter).—Heavy maroon; handsome flower.

D. A. Dunbar (Cheal).—Reddish scarlet; very effective.

Dainty (Hobbies, Limited).—Rosy mauve, with creamy and buff base to florets.

Floradora (Veitch).—Scarlet-crimson, maroon centre; good wiry stems; free.

J. H. Jackson (Veitch).—Crimson velvet, shaded scarlet, and maroon centre; very effective.

Mavis (Hobbies).—Salmon and buff; a very distinct and showy kind.

Mary Service (Chiswick stock).—Rosy salmon, with fawn-coloured base to florets.

Mrs. F. Goddard (Cheal and Veitch).—Deep crimson self; very fine.

Mrs. McKergow (Cheal).—Fawn and buff, very pleasing and distinct.

Orion (Cheal).—Bright rosy mauve, very free.

Reliable (Hobbies).—Salmon with buff shading.

Waterloo (Walker, Thame).—Deep scarlet, medium size, good form, very free and striking.

Chinese Aster Ray (Carter).—A very attractive and decorative section of *Asters*. The 3-inch long florets are rolled into the finest tubes, thus giving the flower-heads a very elegant and distinctive bearing. There are self coloured flowers chiefly of purplish and violet-purple shades, other flowers are white lightly touched with pink or rose at the points. These latter are very pleasing and effective. An award of merit was granted for strain.

EDINBURGH INTERNATIONAL SHOW.

The great International Exhibition of the Royal Caledonian Horticultural Society, which was opened in the Waverley Market, Edinburgh, on the 13th inst., and was continued on the 14th and 15th, may be said to have been, upon the whole, one of exceptional excellence, although, as was to be expected in one of its magnitude, deficiencies were apparent in some of the classes. These led to prizes being withheld in several instances, particularly in the fruit classes, which had suffered considerably on account of the character of the season, but, as a general rule, the produce shown in the competitive section was most creditable, while the non-competitive exhibits were finer than have ever before been seen at any show held in Scotland. The entries in the 254 classes reached the high total of 1,860, and these were generally displayed to the best advantage in the spacious Waverley Market, which, however, would have proved inadequate to accommodate the exhibits had not the roof garden been kindly granted by the Edinburgh Town Council for the accommodation of a number of exhibits. The value of the prizes offered amounted to about £1,600. The Royal Caledonian Horticultural Society must be congratulated upon the manner in which the arrangements were made by the council and its various committees. Mr. P. Murray-Thomson, the able secretary, was, as usual, indefatigable in his exertions, and his unflinching courtesy was highly appreciated by all concerned. Judging began shortly after 6 a.m. on the 13th, and, as no fewer than fifty judges were engaged, the work was carried through most expeditiously, with the result that when the exhibition was opened to members and ticket-holders at 10 a.m. it was practically complete. Although referred to elsewhere, it may here be mentioned that a deputation from the Royal Horticultural Society, consisting of the president (Sir Trevor Lawrence, Bart.), the secretary (Rev. W. Wilks, M.A.), and others represented the society, and awarded about thirty medals.

FRUIT.

Fruit has always taken a leading position in the shows of the Royal Caledonian Horticultural Society, and much interest is always displayed in the awards in the various classes. On the occasion of this event, His Majesty the King showed his interest by presenting a handsome silver cup, to be awarded to the best exhibit in the fruit classes. The award of the cup to Mr. James Beisant, Castle Huntly, for the exhibit of Grapes with which he won the Scottish Challenge Cup, was undoubtedly a popular and well-deserved one.

In Class 1, for a table of dessert fruit 10 feet by 4½ feet, decorated with plants, cut flowers, or foliage, there was a good entry and a close competition, the first prize of £25 falling to Mr. J. H. Goodacre, Elvaston Castle; second, Mr. R. Cairns, Balruddery; third, Mr. D. Kidd, Carberry Tower.

In the class for a collection of twelve dishes of fruit, for which prizes amounting respectively to £21, £15, £10, and £5 were offered, Mr. Goodacre was again first; Mr. Jordan, Impney, second; Mr. D. Murray, Culzean Castle, third.

In the class for eight dishes (open to Scotland only) the prizes went as follows: First, Mr. A. Kirk, Norwood, Alloa; second, Mr. D. Kidd; third, Mr. W. Smith, Oxenford.

For twelve dishes, grown in an orchard house, Grapes excluded, Mr. Dawes was first; second, Mr. Goodacre; third, Mr. R. Cairns. For six dishes, flavour and quality to be first considered, the first prize only was awarded; it went to Mr. Goodacre.

In Class 6, the first prize for which was the Scottish Challenge Trophy for Grapes, value fifty guineas (to be



SILVER CUP PRESENTED BY MESSRS. WILLIAM BULL AND SONS, KING'S ROAD, CHELSEA, FOR THE BEST SIX NEW PLANTS EXHIBITED AT THE EDINBURGH SHOW LAST WEEK.

won three times), with gold badge and £15, eight bunches of Grapes being required, there were six entries, and after careful pointing the coveted trophy was awarded to Mr. James Beisant, Castle Huntly, with an excellent lot, for which 61 points out of a possible 70 were awarded; second, Mr. Kirk, with 53 points; third, Mr. Goodacre, with 52½ points. Mr. Goodacre won the cup last year. A Hogg Memorial Medal was also awarded to Mr. Beisant's exhibit. Mr. Beisant added to his victory by securing the first for six bunches of Grapes; second, Mr. W. Taylor, Henrietta Park, Bath; third, Mr. Kirk.

In the other Grape classes, which were very numerous, the winners of first prizes were: Mr. W. J. Green, Mr. W. Galloway, Mr. M. Mathieson, Mr. J. Anderson, Mr. D. Kidd, Mr. S. Gordon, Mr. G. Scott, Mr. A. McKinnon, Mr. J. Lealie, Mr. W. Smith, Mr. E. Glen, Mr. A. Kirk, Mr. T. Bradshaw, Mr. J. Finnie, and Mr. M. Taylor. Grapes were generally of good quality, though not superior to those of many former shows, while some were only indifferent.

The other fruit classes were generally very good. The following were the winners in the principal classes: Four fruit trees in pots, A. Brydon; two Pine-apples, D. Murray; one Pine-apple, R. Dawes; two Melons, J. H. Goodacre; one Melon, J. H. Goodacre; one Melon, green or white, J. H. Goodacre; one Melon, scarlet, J. Day; Figs, J. H. Goodacre; twelve Peaches, J. H. Goodacre; six Peaches, R. Glen; twelve Nectarines, F. Jordan; six Nectarines, J. M. Stewart; Apricots, D. Rhind; dessert Plums, J. Vert and R. Grindrod; culinary Plums, J. Vert and R. M. Whiting; collection of hardy fruit, decorated with plants, &c., A. Findlay; eighteen dishes of Apples (confined to Scotland and Ireland), C. Logan; collection of dessert Apples, eight varieties, R. M. Whiting; collection of culinary Apples, F. Jordan; collection of Apples grown in Scotland, D. Murray. Other winners of prizes for Apples were Messrs. Hathaway, Lee, Whiting, Divers, and Scott. With Pears the principal winners were Messrs. Bacon, J. Smith, R. Greenlaw, and L. Beamish; Morello Cherries, D. Jardine; bottled British-grown fruits, Mrs. E. Beckett; bottled fruits or vegetables, Mid-Lothian Fruit Preserving Company. In the open classes Mr. A. Findlay was first for twenty-four ripe dessert Apples, and Mr. R. Grindrod was first for a case of Apples.

PLANTS.

Although not equal to the specimens shown in the earlier days of the society's existence, the plants were very good, the group shown by Mr. A. Knight, Brayton, which won the first prize for a group of plants, being a very fine one, entitling Mr. Knight to retain the leading position he has for some time taken in Edinburgh. Second, Mr. J. E. Davis; third, Mr. H. E. Hughes. Mr. A. McMillan was first for eight foliage plants, Mr. J. Thorn for six, Mr. Hughes for four stove or greenhouse plants, Mr. Knight and Mr. W. Miller also taking other prizes.

There was only one entry for the group of Orchids, Mr. W. Sharp receiving a third prize. Other winners with Orchids were Messrs. Findlay and Henderson. These were poor classes.

The principal winners with Ferns were Messrs. Stockdale, Hermiston, Bruce, Paterson, Robertson, and McKenzie. The best twelve table foliage plants were shown by Mr. A. Knight, and other winners in the plant classes were Messrs. McKinna, R. Brown, J. Fraser, W. Heatley, T. Leslie, and A. Thomson.

CUT FLOWERS.

The cut flowers were generally excellent, although the bad weather of the previous week had injured many outdoor flowers. Hardy plants were well shown. Dahlias were excellent; Roses very fine for the season, especially in the open classes; Gladioli were very good; Sweet Peas were not so fine as last year. An improvement in the arrangement of the displays is still much to be desired, although the advance made is considerable. The table decorations, which were exceedingly good, and the wreaths and floral designs and bouquets proved a great attraction during the show. In the open classes one of the most admired exhibits was the display of decorative Roses from Messrs. James Cocker and Son, Aberdeen.

Gardeners and Amateurs.—There was a good competition for the prizes offered by Lord Leven and Melville for a collection of hardy flowers, and the first was awarded to Mr. A. Brydon for one characterised by high quality and excellent arrangement. This was also awarded a Flora medal by the Royal Horticultural Society's deputation. Second, D. Christie; third, T. Young; fourth, F. W. H. Wilson.

In the other classes for these flowers Messrs. Christie, W. Young, and J. McKinna were first, and Messrs. Fordy and Brydon took a similar position for Gladioli.



THE COUNCIL OF THE ROYAL CALEDONIAN HORTICULTURAL SOCIETY AND THE JUDGES AT THE GREAT INTERNATIONAL SHOW HELD AT EDINBURGH ON THE 13TH, 14TH, AND 15TH INST. (From a photograph by A. H. Inglis.)

In Dahlias the strongest competition lay with the Cactus varieties, Messrs. Martindale, Storrle, and Rutherford leading. In other classes for Dahlias the winners were Messrs. Veitch and Jenkins. Mr. Ness, Duns, was the winner in both Sweet Pea classes. As already mentioned, the Roses were good, and the leading winners were Messrs. W. Parlane, J. Russell, L. Black, A. E. Todd, W. Armstrong, and A. Hume. Messrs. B. ydon and J. Stewart, jun., won with Carnations and Picotees. Mr. A. Ollar was first for Pansies and Violas. Early Chrysanthemums were extensively shown, Messrs. Livingstone and Baird leading.

Open Class.—There was an excellent competition in the Rose classes, Messrs. Hugh Dickson being first for thirty-six distinct and for eighteen; Messrs. J. Cocker and Sons for a collection of decorative varieties, for twelve distinct, and for twelve in vases. For twenty-four Teas Messrs. D. and W. Croll were first. Other winners in Rose classes were Messrs. Dicksons and Co., Adam and Craigmile, and W. and R. Ferguson. For Gladioli Messrs. A. Campbell and Sons were first. Messrs. M. Campbell and Son were first for a collection of Dahlias and for six vases of Pompons, and Mr. J. Smellie for Cactus varieties. Mr. Smellie was first also for early Chrysanthemums. For twelve vases of Carnations and Picotees Mr. Whitehead was first, and for both show and fancy Pansies Mr. J. Smellie.

The decorated dinner tables were very beautiful, and Messrs. Felton and Sons were first; second, Miss F. Molyneux; third, Miss Duncan. For floral designs, wreaths, and bouquets, Miss A. Todd, Messrs. Perkins and Son, and Felton and Sons were the first prize winners.

VEGETABLES.

These were exceedingly good as a whole, but little surprise was felt when the first prize of £21 for the display of vegetables was awarded to Mr. E. Beckett, whose exhibit was very fine in every respect; second, Mr. J. Gibson; third, Mr. W. Harper. Mr. Beckett also received the Veitch Memorial Prize and the Benary Medal.

In the display confined to Scotland the quality was lower than that of Mr. Beckett's exhibit in the other class. Mr. E. B. Gibson came first with excellent produce. Onions were especially good, Mr. G. J. Barker being first. Other vegetable classes were exceedingly well contested, and the prizes well distributed.

The competition for the under gardeners' sketch plan was comparatively limited, but the successful competitors had submitted excellent and well-considered plans. For these the winners were: First, F. Philip, Philiphaugh; second, A. Dickson, Dalkeith Gardens; third, E. H. Howard, Borrowash.

NON-COMPETITIVE EXHIBITS.

These were considerably more numerous than at any preceding Edinburgh show, and formed a great attraction to the visitors. Unfortunately, pressure upon the space caused some of the exhibits to be much restricted, with the result that the effect was considerably marred. Hardy plants were very largely shown, while florists' flowers and stove and greenhouse plants also formed a splendid display.

A remarkably interesting group of plants came from the Corporation of Glasgow, contributed mainly from the Botanic Gardens in that city (superintendent, Mr. James Whitton). This group, apart from its tasteful arrangement, was notable for the number of interesting plants it contained. Noble specimen Palms and other foliage plants were interspersed with choice Cypripediums, several of these being hybrids raised in the Glasgow Parks. Nepenthes, together with a most interesting collection of Hepaticas in pans. This exhibit was the subject of high encomiums. It received gold medals from the Royal Horticultural and the Royal Caledonian Societies.

Another splendid display was made by Messrs. James Veitch and Sons, Limited, Chelsea. It consisted of many foliage plants, such as Crotons, Orchids, and other stove and greenhouse plants too numerous to detail. This was one of the best and most effective groups in the show, and was awarded gold medals by both societies. Messrs. Veitch also made a fine display of Apples and other fruits.

Mr. David W. Thomson, George Street, Edinburgh, sent two groups which well deserved the gold medals of the Royal and the Caledonian Horticultural Societies given. In the Market itself the group consisted of stove and greenhouse plants, Liliums, &c. The other group was on the flat roof, and consisted of good specimens of topiary work, together with choice shrubs.

Another Edinburgh firm whose exhibit was much admired was that of Messrs. T. Methven and Sons. They had a tastefully arranged group of foliage and flowering plants.

Mr. John Downie, Edinburgh, also contributed an effective group, including choice foliage and flowering plants, Orchids being freely used.

Messrs. Cunningham, Fraser, and Co., Comely Bank, Edinburgh, added greatly to the show by a table of hardy border and alpine plants. On the roof garden the same firm had an arrangement of evergreen and deciduous hardy shrubs.

Messrs. James Dickson and Sons, Edinburgh, also exhibited a group of hardy shrubs of the finest kinds.

Mr. John Phillips, Edinburgh, sent a group of stove and greenhouse plants showing good culture.

In addition to their successful exhibits of Roses in the competitive section, Messrs. James Cocker and Sons, Aberdeen, made a very fine display of hardy border and alpine flowers and Roses.

Another Scottish firm which made an excellent contribution to the exhibition was that of Messrs. James Grieve and Sons, Redbraes, Edinburgh, whose early Chrysanthemums, Violas, and other flowers were of excellent quality.

Messrs. M. Campbell and Sons, Blantyre, sent Cactus and other Dahlias and Carnations.

Messrs. Dobbie and Co., Rothesay, and Mark's Tey, Essex, made one of their usual brilliant exhibits of Dahlias,

Roses, Violas, Carnations, and other florists' flowers, with herbaceous plants and Potatoes.

Mr. John Forbes, Hawick, sent an extensive collection of florists' and other border flowers, among which Phloxes and Pentstemons were prominent.

Other Scottish firms which made good contributions were Mr. W. Farquharson, Perth, who exhibited hardy flowers; Mr. Alfred Young, Elgin, who sent herbaceous and other border flowers; Messrs. Ben Reid and Co., Aberdeen, Lilium Harrisii; and Mr. James Kerr and Mr. T. A. Scarlett, who exhibited Potatoes; while Messrs. Storrle and Storrle, Glencarse, Dundee, made a splendid exhibit of fruit trees in pots, Streptocarpus, Begonias, and other specialities.

One of the finest features of the non-competitive display were the Begonias from the south. From Messrs. T. S. Ware, Limited, came a large bank of magnificent double varieties; Messrs. B. R. Davis and Sons, Yeovil, also sent double Begonias of highest quality; Messrs. Blackmore and Langdon, Bath, also showed double Begonias of perfect symmetry and beauty.

Messrs. William Cutbush and Sons, Highgate, London, set up a magnificent group of hardy plants, comprising alpine and border flowers, shrubs, including Cotoneaster angustifolia in berry and not shown in Edinburgh before.

From Messrs. Vilmorin-Andrieux and Co., Paris, came a striking exhibit of vegetables and fruits, the most remarkable ever seen in Scotland.

Messrs. R. Wallace and Co., Colchester, had a large table of choice things, composed largely of Liliums, Montbretias, alpine and border flowers, with the new Colchicum speciosum album and other Meadow Safrons, &c.

Sweet Peas were well shown by Messrs. Eckford, Wem; and Mr. R. Bolton, Carnforth.

Messrs. Charlesworth and Co., Bradford, and Messrs. William Bull and Sons, Chelsea, showed choice Orchids, some of great rarity and novelty.

Mr. A. J. A. Bruce, Chorlton-cum-Hardy, exhibited Sarracenias, Droseras, and other insectivorous plants.

Messrs. E. H. Bath, Limited, Wisbech; Hobbies, Limited, Dereham; and S. Mortimer, Rowledge, exhibited Cactus Dahlias of the most advanced types.

Mr. N. Davis, Framfield, had an excellent exhibit of early Chrysanthemums.

Messrs. Little and Ballantyne, Carlisle, showed hardy ornamental trees and shrubs, including a new conifer suitable for the rock garden—*Cupressus knowlfieldensis glauca*.

Messrs. G. Bunyard and Co., Maidstone, exhibited a fine lot of hardy fruit—Apples, Pears, Filberts, &c.

Messrs. Sutton and Sons, Reading, made a good display of vegetables and other produce of their well-known excellent strains.

From Messrs. Dicksons, Limited, Chester, came a large group of hardy and other flowers.

An interesting exhibit came from Mr. J. Wilson, St. Andrews, showing the results of experiments in hybridising Passifloras, Begonias, Pelargoniums, &c. Want of space precludes details of these and other exhibits, forming a section never before equalled in Scotland. The show was opened by Lord Balfour of Burleigh, president of the society.

ROYAL HORTICULTURAL SOCIETY'S AWARDS.

Gold medal.—The Corporation of Glasgow, for interesting botanical plants; Mr. David Thomson, Edinburgh, for group of plants and shrubs; Messrs. James Veitch and Sons, Limited, London, for group of plants and fruit.

Silver-gilt Hogg medal.—The Earl of Harrington, Elvaston Castle, Derby, for fruit; Messrs. Vilmorin-Andrieux and Co., Paris, for vegetables.

Silver-gilt Flora medal.—Sir Wilfrid Lawson, Bart., Brayton, for group of plants; Messrs. Wallace and Co., Colchester, for hardy plants, &c.; Messrs. Cocker and Son, Aberdeen, for Roses; Messrs. Charlesworth and Co., Bradford, for Orchids; Messrs. Downie, Edinburgh, for group of plants.

Silver-gilt Knightian medal.—Lord Aldenham, vegetables; Duke of Portland, vegetables; Messrs. Sutton, fruit and vegetables.

Silver-gilt Banksian medal.—Messrs. Dobbie, hardy flowers; Mr. A. E. Campbell, Gourcock, Gladioli; Messrs. Cutbush, London, group of plants; Mr. J. Phillips, Edinburgh, group of plants; Mr. A. J. A. Bruce, Chorlton-cum-Hardy, insectivorous plants; Messrs. T. S. Ware, Feltham, Begonias; Mr. J. Smellie, Busby, Cactus Dahlias; Messrs. Cunningham and Fraser, Edinburgh, hardy plants.

Silver Hogg medal.—Miss G. Armistead, Castle Huntly, fruit; Messrs. George Bunyard, Maidstone, Apples.

Silver Knightian medal.—Messrs. Storrle and Storrle, Dundee, fruit trees in pots.

Silver Flora medal.—Messrs. Hobbies, Limited, Dereham, Cactus Dahlias; John Forbes, Hawick, Dahlias and Pentstemons; Mr. A. Brydon, Innerleithen, herbaceous plants.

Silver Banksian medal.—Mr. N. Davis, Framfield, Sussex, Chrysanthemums; Mr. R. Bolton, Carnforth, Sweet Peas; Mr. George Logan, Carrigrohane, Cork, Apples.

ROYAL CALEDONIAN HORTICULTURAL SOCIETY'S AWARDS.

Gold medals.—Messrs. George Bunyard and Co., Limited, for pot fruit trees, &c.; Charlesworth and Co., Bradford, for Orchids; Cunningham, Fraser, and Co., Edinburgh, for hardy shrubs; Dobbie and Co., Rothesay, for Potatoes; Glasgow Corporation, Parks Department, for exhibit of rare and interesting plants; Storrle and Storrle, Dundee, for orchard house fruit trees; D. W. Thomson, Edinburgh, for topiary work; James Veitch and Sons, Limited, London, for group of plants and exhibit of fruit; R. Wallace and Co., Colchester, for herbaceous and other plants.

Silver-gilt medals.—Blackmore and Langdon, Bath, for Begonias, &c.; A. J. A. Bruce, Chorlton-cum-Hardy, for

Sarracenias; William Cutbush and Sons, Highgate, for group of flowering plants; James Cocker and Sons, Aberdeen, for herbaceous flowers and Roses; Dobbie and Co., Rothesay, for Dahlias, Roses, &c.; Dicksons, Limited, Chester, for plants and cut flowers; John Downie, Edinburgh, for group of plants; John Forbes, Hawick, for cut flowers; Little and Ballantyne, Carlisle, for hardy ornamental trees and shrubs; T. Methven and Sons, Edinburgh, for group of plants; John Phillips, Edinburgh, for stove and greenhouse plants; Sutton and Sons, Reading, for fruit and vegetables; D. W. Thomson, Edinburgh, for group of plants; Thomas S. Ware, Limited, for Begonias; James Wilson, St. Andrews, for decorative Begonias, &c.; Vilmorin-Andrieux et Cie., for vegetables and cut flowers.

Silver medal.—Robert Bolton, Carnforth, for Sweet Peas; James Dickson and Sons, Hanover Street, for hardy shrubs; Henry Eckford, Salop, for Sweet Peas; Hobbies, Limited, Dereham, for Cactus Dahlias; Stansfield Brothers, Southport, for alpine garden.

Bronze medal.—T. R. Hayes, for Heaths.

First-class certificates were given for Clematis montana, exhibited by Messrs. J. Veitch and Co., Limited; Tamarix hispida, by G. Paul and Son, Old Cheshunt, Herts.; a new scarlet Thorn, by Vilmorin-Andrieux and Co., Paris; and Colchicum speciosum album and Montbretia Promethus, exhibited by R. Wallace and Co., Colchester.

THE DINNER.

On the evening of the opening day the Royal Caledonian Horticultural Society entertained to dinner the deputation from the Royal Horticultural Society, together with the judges, exhibitors, and a number of other friends, in the North British Station Hotel. The chair was occupied by the Right Hon. Lord Balfour of Burleigh, president of the society, who was supported by Sir Trevor Lawrence, Bart., V.M.H., the Right Hon. the Lord Provost of Edinburgh (Sir Robert Cranston, Bart.), Rev. W. Wilks, M.A., Bailie M'Michael, M. Philippe L. de Vilmorin, Mr. A. D. Mackenzie, and other gentlemen. Among others present were Mr. H. J. Veitch, Mr. F. W. Burbridge, Mr. F. W. Moore, Mr. Irwin Lynch, Mr. W. H. Massie, Mr. George Paul, Mr. W. Cocker, Mr. J. C. Fraser, Mr. D. Thomson, Mr. D. W. Thomson, Mr. A. Mackellar, Mr. W. H. Massie, Mr. J. W. Whitton, Mr. J. Whytock, Mr. Alex. Dickson, Mr. J. W. M'Hattie, Mr. James Hudson, Mr. H. B. May, Mr. J. Watt, Mr. Peter Barr, Mr. Walter P. Wright, Mr. J. Methven, Mr. R. P. Brotherton, Mr. D. Inglis, Mr. G. Gordon, Mr. W. Smith, Mr. D. Kidd, Mr. James Grieve, Mr. S. Arnott, Mr. P. Murray Thomson, Mr. J. Forbes, Mr. T. Lunt, Mr. M. McIntyre, Mr. J. C. Dick, Mr. R. Fife, Mr. A. Campbell, Mr. F. H. Johnstone, and a number of other gentlemen from England, Ireland, and Scotland.

After the usual loyal toasts, that of "The City of Edinburgh" was proposed by Mr. A. D. Mackenzie, and responded to by Lord Provost Sir Robert Cranston. The toast of the evening, "The Royal Caledonian Horticultural Society," was proposed in fitting terms by Sir Trevor Lawrence, Bart., V.M.H. Sir Trevor advocated the claims of the Royal Caledonian Horticultural Society for increased support, and adduced the comparative figures showing the progress of the Royal Horticultural Society since its reorganisation as affording encouragement to the members of the sister society. The toast was warmly received, and was replied to by Lord Balfour of Burleigh in appreciative terms, in the course of which he humorously accused the Royal Horticultural Society of "poaching upon the preserves" of the Scottish society by its accessions of Scottish members. Bailie M'Michael proposed "The Judges," coupled with the names of Mr. David Thomson, "the grand old man of Scottish gardening," and Mr. A. Mackellar. The former replied in a pleasant speech, the latter returning thanks in a few suitable words. The toast of "The Exhibitors and Competitors" was submitted in an able speech by the Rev. W. Wilks, M.A., in the course of which he referred in complimentary terms to some of the leading exhibits. M. Philippe L. de Vilmorin replied. Other toasts were "Kindred Societies," proposed by Mr. W. H. Massie, and replied to by Mr. Harry J. Veitch and Mr. W. R. Smith (Washington, U.S.A.); "Donors of Prizes," proposed by Mr. James Whytock, and replied to by Mr. Alex. Dickson; "The Press," proposed by Mr. J. W. Whitton, and replied to by Mr. G. Gordon; and "The Chairman," proposed by Mr. J. W. M'Hattie, which was replied to by Mr. W. H. Massie, who occupied the chair owing to Lord Balfour of Burleigh having, with Sir Trevor Lawrence, to leave early.

DALSTON DAHLIA SOCIETY.

THIS newly-formed society held its first show on the 7th inst. It was a most successful exhibition, both as regards blooms and attendance. In fact, the attendance was so large that many were turned away disappointed, so the committee decided keep to open all day Friday. The blooms shown, some measuring 7 inches to 8 inches, and grown within two miles of London, tend to show the growing popularity of the Dahlia. The principal winners were: For twelve Cactus Dahlias, Messrs. Nye, Hudson, and Hornett; six Cactus, Messrs. Keer and Hudson; double, Pompon, and mixed, Mr. J. Lefever was first in each case; table decoration, Mr. Hudson; the best bloom in the show was exhibited by Mr. Hudson, with Minnie West. Mr. John B. Ross was first for vase, basket, and bouquet of Dahlias, and Mr. H. C. Hudson for table decoration. Mr. J. Lefever won four first prizes. The Dalston Amateur Dahlia Society, of which Messrs. A. A. Lawson and J. B. Ross are secretaries, has made an excellent start, and we hope it may prove successful. The variety Minnie West from Mr. Keer was the best bloom in Class 2. Mr. Keer also had the best amateurs' exhibit in the show.

THE GARDEN.

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EVERGREEN ROSES.

THE term "evergreen" as applied to the *Rosa sempervirens* section is scarcely correct; there are no varieties that are truly evergreen, the majority of them merely retaining the bulk of their foliage during the greater part of the winter, more especially when growing in sheltered positions. *Félicité-Perpétue*, a variety of *Rosa sempervirens*, is one of the finest and also one of those most generally grown; the flowers are small, of perfect shape, and of a creamy white colour, with a delicate flush of pink while young. *Flora* (bright rose) and *Princess Marie* (deep pink) are two more grand varieties of this section. Both the *Ayrshire* (*Rosa arvensis*) and *Boursault* Roses (*Rosa alpina*) are equally deserving of the name evergreen, and when speaking of these Roses it must not be understood to refer to the varieties of *R. sempervirens* alone, because there are many others equally deserving of the title and that are quite as often spoken of in the same category. Some of these make very strong and long growths, *R. sempervirens leschenaultiana* soon covering walls or fences from 40 feet to 60 feet high. For covering ruined walls, old fences, rough banks, and the stems of old trees, these rambling Roses are seen to the best advantage. Few things are more beautiful than the stem of a dead tree when covered with these Roses, the rough trunk affording them the firm support they require, and allowing them full scope to develop their long pendulous branches in a very pleasing manner. Strong growers, such as *Dundee Rambler*, *splendens*, *Alice Gray*, &c., make splendid subjects for town gardens. They are particularly hardy, and do not suffer from smoke and fog to nearly the same extent as the majority of Roses. They are also well suited for northern and bleak aspects, and will form a bower of Roses where most other varieties refuse to grow. Grown on tall stems of the hedge *Briar* they form good examples of weeping Roses, and their wonderful vitality serves them in good stead and keeps the stock in perfect health. In any odd corner, or where some unsightly object has to be hidden, few plants will accomplish this end sooner and more effectually than these so-called evergreen Roses.

All of these strong growers should be pruned with care, never interfering with the long maiden shoots of the previous summer's growth, as it is these that bear such a grand profusion of miniature blossoms. These are carried in clusters of ten to thirty blooms, and are borne throughout the whole length of healthy shoots made the preceding season. Let all weakly growth be thinned out in the spring, and allow as much light and air as possible to the strong pendent shoots. Strong wires fastened from point to point will serve to train these shoots over, and many a corner in town gardens may be made beautiful by planting two or three varieties of these rampant and rapidly climbing Roses.

The class of soil is not of much importance to them, a cool one being best, but they will amply repay for generous treatment. The stronger they can be grown the better will be the result during the following season, and as these Roses mature their wood without putting on so ripened an appearance as most species, and are naturally self-protecting by reason of their semi-evergreen character, the late autumn growth is not so liable to injury from frost.

STANDARD-DWARF ROSES.

In a description of my garden, which received the great compliment of a notice and illustration in *THE GARDEN* of August 12, I was glad to see that special mention was made of my standard-dwarfs. I am not alone, I suppose, in growing these, since, if I remember rightly, they were first suggested to me by Mr. Frank Cant on a visit to my garden, but they do not seem to have secured enough attention for notice in any of the usual Rose books. It is something to have made a point which even the late Mr. Foster-Melliar passed over.

I prefer, and increasingly prefer—here opinions may well differ according to the situation—standards to dwarfs for the show beds, not only for Teas and Hybrid Teas, but for the majority even of Hybrid Perpetuals. I have no sympathy for the common complaint of the standard's bare leg. No good rosarian, of course, ever allows any other plant in his Rose beds. But if the dwarfs, which should be grouped round the standard like soldiers under a captain, are healthy and vigorous, the leg of the standard will need no trousers to cover it.

Now everybody must have noticed—several times probably with his Hybrid Perpetuals,

and sometimes with his Hybrid Teas—that a magnificently powerful young shoot springs out and runs away with the good food from the mouths of its weaker brethren. This suggests what should be done. The shoot has established the right of the strongest. In choosing from a litter of puppies you should, I am told, select the greediest, not (obviously) for its moral qualities, but for its likelihood best to make its own way. The usual practice, however, in Roses is just the opposite; it is to cut down the great shoot severely, even in autumn, in order to give the others a better chance and make a more regularly uniform plant. This acts badly in two ways, though, of course, it must often be done. It helps the weaker shoots to a right which they have failed to get by Nature, and it often very seriously injures the strong shoot, which sometimes after a severe cutting decides that it has not had fair play, and gives up the game.

Here comes in the method of dwarf-standards, which I have found exceedingly useful, and would recommend everybody to try in such a case. Let your powerful shoot itself be the leg as well as the head. Cut away entirely all the other shoots, and even every useless part of the "stool"; trim off and keep trimmed all the side shoots below the obvious head; stake it just as a standard; give the plant a little extra "afternoon tea" on occasion, as having extra work to do; and soon you will have a noble plant possessing most of the merits of a standard, and free from some of its drawbacks. No ordinary visitor can distinguish most of mine from real standards; indeed, we all know that most visitors think that dwarfs are "on their own roots." I even tried to take in Mr. Frank Cant, on a later visit, with a noble dwarf-standard of *Caroline Testout*, but I fear that the form of my question suggested malice, and he began carefully to examine for the place of budding!

Of course, it is only the stronger sorts that allow of this, and I have not yet done it to any Tea, though I might, perhaps, have succeeded with an *Edith Gifford*. *E. Veyrat Hermanos* seems one of the likeliest for a trial. But of the strong Hybrid Perpetuals and Hybrid Teas I have a good variety, such as *Abel Carrière*, *Caroline Testout*, *Dr. Andry*, *Dupuy Jamain*, *Frau Karl Druschki*, and *Margaret Dickson*. Whether the blooms differ at all in quality from those on a standard *Briar* I cannot positively say. I have never had a medal bloom from one, but then I have only had four or five medal blooms, and these mostly before I ever tried this method. At any rate, they produce good blooms. It is curious that this almost obvious method of growing should have received so little, if any, notice. I therefore venture to contribute my own experience, hoping that it

will be supplemented by others who have a wider range.
G. E. JEANS.
Shorwell Vicarage, Isle of Wight.

COLOURED PLATE.

PLATE 1283.

ROSE LADY GAY.

THE modern Rose grower has been delighted with many sensational introductions, as, for instance, the advent of *Maréchal Niel*, *La France*, *Her Majesty*, *Mrs. John Laing*, *Crimson Rambler*, *Mrs. W. J. Grant*, *Frau Karl Druschki*, and *Dorothy Perkins*; but rarely has a variety leapt into favour so suddenly as *Lady Gay*. In the opinion of competent judges, nothing finer among Roses has been seen at the Temple Show than the specimens of this Rose, exhibited in Messrs. William Paul and Sons' group in May last. This novelty, which is of American origin, is reputed to be a seedling from *Crimson Rambler*, but in foliage it more nearly resembles *Dorothy Perkins*. Doubtless we owe the production of *Lady Gay* to a cross between *Crimson Rambler* and *R. wichuraiana*, or one of its many forms. It would be well described by saying that *Lady Gay* is a glorified *Dorothy Perkins*. The colour is a deep rich rose-pink, fading to a very pale, almost white tint. Every bud in the immense trails of blossom develops before there is the least suspicion of a flower falling. When it is remembered that the individual blooms are some 2½ inches in diameter, and that trails of fifty to sixty flowers are not uncommon, some idea of the decorative value of the Rose may be had. Several of the trails upon the specimen plants alluded to were fully 9 inches wide and from 12 inches to 14 inches in length. Such sprays are invaluable to the floral decorator, and the grandeur of the mass of colour which well-developed specimens must produce will render them invaluable to the gardener. The plants exhibited at the Temple Show were grown in pots of 10 inches diameter, so that as a pot pillar Rose it will be of great decorative value.

This type of Rose will lend itself to the most diverse methods of training, but possibly the best effect will be obtained when the plants are trained upon a trellis or wall, so that every growth and every trail of blossom may have abundant room. Perfect hardiness, glistening graceful foliage, and vigour combine to give to *Lady Gay* a value which growers will not be slow to appreciate. As a weeping Rose nothing has yet appeared that can surpass it, and even year old trees yield flowers with astonishing freedom.

There is one defect in *Dorothy Perkins*—after heavy rains some of its blossoms soon decay, and tend to mar the general effect unless they are quickly removed. This failing does not appear so pronounced with *Lady Gay*, the flowers being more loosely arranged. There can be no doubt that the colour of *Lady Gay* is far more pleasing and restful to the eye than that of *Crimson Rambler*, although we have no desire to depreciate the value of this splendid Rose. We only now need a good rich yellow rambler that will flower at the same time as *Lady Gay*, *Crimson Rambler*, and *Félicité Perpétue*, then it will be possible to make some wonderful displays with their almost simultaneous blossoming.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

October 4.—National Chrysanthemum Society's Show, Crystal Palace (two days).

October 10.—Royal Horticultural Society's Exhibition of British-grown Fruit (three days). Conference of fruit-growers on all three days. Annual dinner of the United Horticultural Benefit Society.

October 24.—Royal Horticultural Society's Exhibition of Home-grown Vegetables. Lecture by Mr. W. P. Wright on "Potatoes."

October 31.—Southampton Horticultural Show (two days).

November 7.—Royal Horticultural Society's Meeting. Lecture by Dr. J. A. Voelcker, M.A., on "Chemistry in Relation to Horticulture."

November 15.—Liverpool Horticultural Association's Chrysanthemum and Fruit Show (two days).

Bamboos flowering.—From Penrhyn Castle, Bangor, North Wales, "A. D. P." writes: "The *Phyllostachys* (*Bambusa*) *Henonis* is also flowering in the garden here."

The best Rose.—Dupuy Jamain, H.P. (Jamain, 1868), is a beautiful carmine Rose, combining all the good qualities mentioned by your correspondent, Mr. Chapman, being perfectly hardy, an excellent grower, a free bloomer, always opening well, a good autumnal, and absolutely mildew-proof. I regard this as one of the very best of the Hybrid Perpetuals, and it is a Rose which anyone can grow.—RHODA.

Conference on early Chrysanthemums.—A conference will be held in connexion with the National Chrysanthemum Society's October show on the first day, October 4th, at the Crystal Palace, when the following papers will be read. The conference will be open to all, free of charge. "Garden Chrysanthemums," by D. B. Crane; "History of Early-flowering Chrysanthemums," by C. Harman Payne; "Early Chrysanthemums for Town Gardens," by J. W. Moorman and E. F. Hawes; "Decorative Value of Early Chrysanthemums," by George Gordon, V.M.H.; "Early Chrysanthemums for the Market," by E. F. Such.

Lilium auratum.—Your readers may be interested to know that I have in the garden here an *auratum* Lily which has produced no less than sixty-seven buds, fifty on one stem, and seventeen on the other; about fifty-five of them will develop, I think—they are just breaking. Is this a record number?—R. FISHER, *Almond House, Hampton on Thames.*

Narcissus classification.—I wish to draw attention to the unsatisfactory classification of the *Narcissi*, especially with regard to the rush-leaved varieties. These are far more distinct from the mass of *Ajax-Poeticus* hybrids than the *Tazettas* are, yet the latter are separated in books, catalogues, shows, &c., and the former are not, but mixed up anyhow with the *magni*, *medio*, and *parvi-coronati*. These three last-named divisions are just a convenience, nothing more, and ought not to supersede a radical structural difference, but be subordinated to it; and no one can look at the rush-leaved *Narcissi* for a moment without seeing how far they vary from the flat-leaved ones, and how closely they are allied to one another. If one of the leading shows would institute a class, or classes, for rush-leaved *Narcissi* only, and exclude them from the ordinary classes (as is done with *Tazettas*), the rest, and the catalogues, &c., would soon follow.—K., *North Devon.*

A good Gloxinia.—Sutton's *Her Majesty* may truly be said to be the finest white *Gloxinia* in cultivation. Its pure snow white flowers are freely produced just above the elegant foliage.

An interesting history attaches to this fine flower. In 1877 the flower selected for the experiment was excellent in form and substance, but it had a band of pink at the top of the throat, and the object to be attained was the elimination of the pink band. Selection and crossing were continued year after year, until the flower came true from seed as a pure white; but not until 1891, after fourteen long years of patient and persevering trial, was it offered to the public.—J. B.

Pea Sutton's Late Queen.—This fine Pea is one of the most reliable late varieties. Even in November a dish of this sort can be gathered. In flavour this variety rivals the well-known *Ne Plus Ultra*, from which so many selections have been made. Sutton's *Late Queen* Pea has an interesting history. During the summer of 1888, at Messrs. Sutton's trial grounds at Reading, in a trial row of a new late Pea, a single pod arrested attention. It was marked, and allowed to mature. Mr. Arthur W. Sutton was in the North at the time, and the pod was posted to him for inspection. On its return the box was wrecked, and every Pea, except one, was damaged. That single Pea proved to be the parent of this splendid variety.—J. B.

Pompon Chrysanthemum Veuve Clicquot.—Of the many fine *Pompon Chrysanthemums* of which little is known, the variety under notice deserves special mention. We have grown it for three or four years, and its good quality has never failed to please us. The blooms are of good size and splendid form, having rather broad florets that build a flower of good type. The colour in this instance is terra-cotta, freely suffused with brick-red. The habit of the plant is good, being branching and about 2½ feet in height. For growing in a natural manner without disbudding this is a fine sort, beautiful sprays for decorative work developing in this way. The period of flowering is September and early October.—D. B. C.

Chrysanthemum Goacher's Crimson.—This variety is doing exceptionally well from cuttings rooted quite late in the season. We have been making a comparison between plants resulting from a late winter propagation and those the result of a March propagation. The later propagated pieces are in good condition at the time of writing, disposing one to root the cuttings late instead of early. Late-rooted plants have made remarkable progress during the last six weeks, and are developing blooms of splendid form and of the richest and deepest shade of crimson, with a golden bronze reverse to the florets of medium width. This plant does better when left to develop its blooms naturally without disbudding. The height of the plant is about 3 feet or rather less.—D. B. C.

Bowdon Amateur Horticultural Club.—The autumn meeting of this club will be held, by kind permission, on Friday evening, the 29th inst., in the Lecture Hall adjoining the Downs Congregational Church (entrance in Bowdon Road). Doors open at eight o'clock. A paper, entitled "The Evolution of the Garden Rose," will be read at 8.45 p.m. by Mr. Herbert E. Molyneux (hon. treasurer of the National Rose Society). Mr. Molyneux has kindly consented to judge the flowers staged at this meeting, which must be ready for him by one o'clock. The gardeners of members will be admitted to see the flowers between seven and eight p.m., on producing their employer's visiting card. The spring meeting will be held in April next, on a date to be afterwards arranged, when the Rev. S. Eugene Bourne of Dunston Vicarage, Lincoln (member of the *Narcissus* Committee of the Royal Horticultural Society, and author of "The Book of the Daffodil") will read a paper on "Daffodils, and their Culture in the Gardens of Amateurs."

The Hyacinth Clematis (C. davidiana).—Although forty years have elapsed since the Abbé David introduced the

Clematis that bears his name from China, the plant has not gained the recognition that appears to me to be its due. In truth, there is no better plant flowering in the border at the time of writing, and when one considers its absolute hardness, freedom of flowering, and easy adaptation to any soil and situation, together with a self-sustained habit that renders staking almost unnecessary, the wonder is that everyone who has a garden of any size does not grow it. Another feature in its favour is that it joins with half-a-dozen other plants to fill the blank, between the last of the Phloxes and the earliest of the Chrysanthemums. It reaches the dimensions of a small shrub in course of time, and specimens 3 feet high and through are sometimes met with. The leafage is three lobed, very dark green, and reminding one of the Mulberry in its texture and the bush in shape, whilst the flowers are shaped like those of the Hyacinth, and are borne in clusters of shortened spikes around the stem in the leaf verticils, those nearest the top of the growths having little or no leafy environment. In colour they vary from pale to dark blue, and there are several selections with very large deep blue flowers, whilst other selections have myriads of pale blue flowers of comparatively smaller size. It is a long-lived garden plant.—G. B. M.

The Dawson Rose.—From Mellerstain, Kelso, N.B., Lady Binning writes: "I enclose a photograph which you might care to reproduce in THE GARDEN. It is of the Rose Dawson, and was taken at Godminton, Ashford, Kent."

Spiræa camtschatica rosea.—Those who admire the giant Spiræa of Kamtschatka—and who does not?—will be glad to hear of a new rosy coloured form that has all the stately grace of the type plant, combined with a rich pink colouring that should go a long way toward rendering it exceptionally desirable as a plant for waterside and the sheltered, warm, and moist border, where a gross feeder can have everything it wants. Although capable of growing freely in any rich soil, it is only in marshy places that this Spiræa reaches its finest development. There it is really beautiful, clothed from base to summit with lustrous light green leaves like those of the Sycamore, but thrice as large, and bearing pretty flattened clusters of blossoms that are not far behind Spiræa venusta in richness of colouring, differing only in having a silvery sheen that, in my view, enhances the effectiveness so much the more. The only condition the plant cannot withstand is a bleak situation. Here the leaves are often malformed, and the flower-heads are often blown to pieces before they can perfect the blossoms; but given a sheltered situation, a rich and moist root-run, and two years to ensure its being thoroughly established, there will be no plant in the garden more worthy of its room than the rosy form of Spiræa camtschatica.—G. B. M.

Lilium Henryi.—I am sending you a photograph [unfortunately not suitable for reproduction.—Ed.] and some particulars of two bulbs of Lilium Henryi which I planted in a small bed on my lawn composed of peat, silver sand, and loam, the largest proportion of the latter, about three years since. They have blossomed satisfactorily each year since they were planted. They have had no protection during the winter. This year they have thrown up six stems. The central stem of one is 8 feet 5 inches high, and appears to be a combination of two stems terminating in five divisions, with an agglomeration of flowers 1 foot in diameter. The flowers from which the petals have fallen, with those now in full bloom or bud, number altogether over 300. The height of the other five stems varies from 7 feet 11 inches to 6 feet 11 inches, and they are furnished with eighty-eight good-sized perfect flowers. The bulbs have not been disturbed since they were planted. Possibly you may think the photograph and description worthy of a place in your valuable paper, which is a source of much interest to me.—ALFRED RANSOM, Hitchin.

THE NEWER SHOW ROSES.

PRESENT-DAY exhibitors have every reason to congratulate themselves, for during the first half decade of the present century many valuable additions to the list of show Roses have been made. It may, indeed, be safely asserted that at no period in the history of the Rose has progress been so rapid. To realise fully the advance, strike out the names of all introductions of the last five or six years and contemplate the list.

It is true that progress has been most marked in the Hybrid Tea section, which has deservedly caught public favour, but there are also welcome additions to the Hybrid Perpetual and Tea sections. For some time the Hybrid Tea division was wanting in colour, so many of the varieties being creamy white or light shades of pink. That defect, however, now seems in a fair way of being remedied, for crimsons and yellows are appearing. Not all introductions are good—at any rate, from the exhibitor's point of view. Some varieties may improve on acquaintance; others cannot stand the test of time; and in any case it usually takes two or three seasons with a fair number of plants under varying conditions before the real value of a new variety can be determined. It is also a great mistake to appraise a variety too highly because individual blooms of much merit may happen to have been shown.

My remarks on some of the newer show Roses are based, as far as possible, on experience first hand or from observation of these varieties under cultivation in other gardens.

It was remarkable—and, let us hope, auspicious—that the new century should so early bring us two such superb Roses as Frau Karl Druschki and Mildred Grant. Both seem to improve on acquaintance. The former has a distinct advantage in that it is a Rose for everyone, exhibitor or not. The latter, too, appears to be gaining in vigour, while its capacity for securing the

medal as the best H.T. in our shows has been most marked in the present year, and when the figures are published I think it will prove to have established a record in that respect. I fear the high hopes entertained with regard to

Ben Cant (H.P.) have not been fulfilled. Its deep crimson colour was just what was wanted, and it has the merit of vigorous growth, but in my experience the perfect flowers are far to seek, so that it can hardly be described as a reliable exhibition Rose. All the same, splendid flowers of this variety have been shown.

Hugh Dickson was brought out last year as an H.P., but in the National Rose Society's handbook on "Pruning Roses" it is classed as H.T. The brilliant scarlet-crimson colour



THE DAWSON ROSE IN A GARDEN AT ASHFORD, KENT.

(From a photograph kindly sent by Lady Binning.)

is good, and the flower as shown by the raiser leaves little to be desired. The plant is vigorous in growth. It is early yet, perhaps, to speak, but so far I have not secured blooms of exhibition size.

Dean Hole (H.T.).—Of recent introductions this is certain to take a high place. The blooms somewhat resemble Mrs. Edward Mawley (T.), and fine specimens have been shown this year. With its bright silvery carmine colour and perfect form it is a Rose destined to become a great favourite among exhibitors, and I fancy after Bessie Brown and Mildred Grant it will

be accounted one of the best Roses the famous Newtownards firm has yet sent out.

Florence Pemberton (H.T.).—Last year I was inclined to think Alice Lindsell might prove superior to Florence Pemberton. My experience this year leads me to place Florence Pemberton among Dickson's best half-dozen. To its attractive colour—creamy white, with edge of petals tinted pink—it also adds the other virtues of a fine exhibition Rose, and has been shown in grand form many times this season.

Alice Lindsell (H.T.).—Another light Rose of exhibition form, vigorous in growth, and a promising variety, which this year has not fulfilled expectations. Possibly the season is responsible. It is clear that this Rose, like Bessie Brown and some others, requires favourable weather for the proper development of the flowers.

Mrs. D. McKee (H.T.) does not appear to be of particularly strong growth, though I think it is likely to become a popular Rose. The flowers, which open well, are of good shape and size; colour creamy white.

Lady Ashtown (H.T.) is a good grower, and in any event will be a fine garden Rose. The deep pink flowers are perfect in shape and freely produced, but hardly large enough for exhibition. Close thinning and high feeding will probably secure this desideratum.

Mme. Jules Gravereaux (T.) is a fine Rose of the Dijon Tea class, sure to be highly esteemed when better known. Colour light yellow, shaded peach. The flowers have good lasting qualities, and will keep in exhibition form for two or three days. Rather curiously the name does not yet appear in some of the trade catalogues.

Pharisaer (H.T.) is vigorous in growth, and the flowers are very fine when young, but not particularly full, and, accordingly, not so lasting as some. Colour salmon, shaded white. This is a promising Rose, which has been well shown during the past season.

Perle von Godesberg (H.T.) is a very pleasing lemon yellow sport from K. A. Victoria, and therefore hardly needs further description. It is likely to become valued as an improvement on that well-known variety.

Oberhofgartner Terks (H.T.) in growth resembles La France. The flowers in form are something like those of Mildred Grant, with large light pink petals.

Mrs. Conway Jones (H.T.).—The large creamy white flowers of this variety somewhat resemble a light Caroline Testout, and although a good Rose we are well supplied with the colour here indicated.

Etoile de France (H.T.).—This variety, introduced with a flourish of trumpets last year, is hardly likely, I think, to prove more than a vigorous, free-flowering, dark crimson garden Rose.

Souvenir de Pierre Notting (T.).—Vigorous in growth, with fine foliage, this Rose makes a splendid half standard, and were it really a yellow Maman Cochet, as sometimes described, the demand for it would surely be enormous. While, however, some of the lovely high-pointed blooms are large enough for exhibition, the majority are undersized.

Mme. Jean Dupuy (T.).—This Rose does not appear to be very well known, but it would seem a welcome addition to the Teas. The blooms are very attractive in colouring, described as yellowish rose with reddish yellow centre, outer petals edged with rose.

Boadicea (T.) is a splendid exhibition Rose, though placed among the garden Roses in the

National Rose Society's catalogue. It has been shown frequently in fine form, and is hardly as well known and appreciated as it deserves.

Le Progrès (H.T.) is said to be a coming Rose, of a deep yellow colour, just what is wanted in the Hybrid Teas. If it turns out well for show purposes it will be warmly welcomed. I learn that it has been exhibited in good form in the North this year.

Mme. Joseph Hill is another nearly yellow H.T., tinted coppery pink, and is altogether a splendid new Rose, but the blooms are not too full, and would require to be shown young.

Other promising varieties which might be included are M. Paul Lede, David Harum, Gustav Grunerwald, Frau Lilla Rautenstrauch, and George Laing Paul, and there are probably others. I do not pretend to have given an exhaustive list, but some of those mentioned will, I am sure, become old and fast friends, even if others should be tried and found wanting. In closing I must not omit to mention that the outlook is bright. Of varieties not in commerce until this year, I should like especially to name

J. B. Clark as a Rose which we shall all wish to give a trial at the earliest opportunity. The raiser (Mr. Hugh Dickson) informs me that it is a wonderfully vigorous grower, as one would readily gather from the marvellous foliage, and the blooms he showed this year at the Botanic Gardens on July 6. They created a good impression, for here we have a good crimson H.T. I rather fancy another row of petals would improve the lasting qualities of the flower, but the bloom which gained for him the National Rose Society's silver medal for the best H.T. in the show was at the time of judging simply magnificent. Of Messrs. Alexander Dickson's new Roses I have specially noted Countess Annesley and Countess of Derby as likely to prove valuable acquisitions.

Sutton.

E. J. HOLLAND.

AUTUMN ROSES.

LIFT, lift, oh mists of coming autumn days,
Brief are the flowers' lives, even in happy June;
Veil not the sun, we cannot spare his rays
So soon!

Shy are the Rose-buds, folded within fold,
Waiting the soft south winds to bid them fearless bloom,
Breathe in their ivory cups of cream and gold
Perfume.

Tears of the night that falling dewdrops bring,
Close the sweet petals of their lives begun,
Come! bid them flutter wide each velvet wing,
Oh, sun!

R. THOMPSON.

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(Continued from page 183.)

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(To be continued.)

ROSE EUPHROSYNE.

WHEN the variety Turner's Crimson Rambler was first distributed and became so popular the general cry was for Roses of similar habit and as floriferous, but differing in colour. To meet this demand Aglaia, Euphrosyne, and Thalia were sent out as yellow, pink, and white Ramblers respectively. At the present time these terms are somewhat misleading, as there are several varieties since introduced to which these titles can be applied. Euphrosyne has large trusses of semi-double rose-coloured flowers, paler towards the centre. It is sweetly scented. The chief fault found with the Polyantha section of Roses is that they only flower once a year, and the subject of this note is no exception to the rule. Some growers are discarding this variety, preferring some of the varieties of later introduction, such as Dorothy Perkins. Where room is limited it may not be advisable to plant it, but no garden of any size should be without it. On the Rose pergola at Kew it was very fine during the past summer. A strong grower when well established, it is annually a mass of flower. Especially is it useful for clambering up old tree trunks and branches, or covering large arches. A little of the old wood should be cut out each year, as much better trusses of flower are obtained from the young wood. This should be done soon after flowering to allow the growths remaining a better chance of ripening.

A. O.

YELLOW ROSES AS STANDARDS.

OWING doubtless to the fact that most of our best yellow and orange-coloured Roses are found among the climbing or very vigorous kinds, if one would have a good supply of this popular colour the plants must be grown upon stems from 2 feet to 4 feet in height. I say must because wall space is not always available for the climbers, and neither is it convenient at all times to grow them as free bushes. But standards and half-standards seem to adapt themselves to most gardens. I recently saw some splendid standards of William Allen Richardson, Celine Forestier, &c., and I thought amateurs would be interested to know that there are other delightful yellow and orange-coloured Roses equally as suitable as the above. One of the best is Mme. Moreau. It is reddish orange, not unlike Sunrise, and far better for outdoor culture than that Rose. Then Billiard et Barré would be welcome with its golden buds, perhaps the best golden Rose we have in the bud state.

Mme. Pierre Cochet is another, of a fiery orange colour, quite captivating in its density of tint; Belle Lyonnaise is well known, being a pale and perhaps better shaped form of Gloire de Dijon;

Mme. Barthelemy Levet, a really lovely canary yellow; Bouquet d'Or, quite the best form of Gloire de Dijon type, and one that should be in every garden; Le Soleil, rich glossy yellow of remarkable texture of petal, a grand Rose, not nearly so well known as it should be; Gustave Regis, the well-known long-budded Rose, perhaps the most beautiful bud we have in Roses; Mme. Hector Leuilliot, an orange-coloured novelty of much promise, and one destined to take a foremost place among Roses of this colour; Henriette de Beauveau, one of the last of M. Lacharmes' introductions, and one of the best pure yellow Roses, but, unfortunately, very tender; Réve d'Or, a Rose of prodigious growth, and very shy blooming until it has attained considerable dimensions. Where its growths can be well spread out and they can be brought safely through winter this variety will develop into a wonderful standard. P.

ROSES FOR AUTUMN PLANTING.

IN turning over the pages of Vol. LXVII. of THE GARDEN, which has just arrived from the binder, I came across the "Prize Essay on Roses" on page 390. When this was published I intended to discuss it, and, indeed, I thought it curious that it did not arouse some comments

from other rosarians, but then July is such a busy season in the garden that probably (as in my own case) no one could spare the time. However, now that most of us are making up our minds as to the plans and alterations we shall carry out, and what varieties we shall plant, the outcome of a discussion of the numerous topics touched upon in the essay may prove advantageous to many. In order to criticise fairly it will be best to reprint some of the questions and answers as they appeared.

QUESTION I.—Name the best twelve distinct Hybrid Tea or Hybrid Perpetual Roses for garden decoration, taking into consideration freedom and length of flowering and hardness of constitution. Two distinct Roses of each of the following colours must be selected: White, flesh, yellow or cream, pink, cherry or light red, and scarlet or dark red. Exclude new Roses of 1904-5.

ANSWER.—White: Frau Karl Druschki, H.P.; Bessie Brown, H.T. Flesh: Viscountess Folkestone, H.T.; Killarney, H.T. Yellow or cream: Gustave Regis, H.T.; Kaiserin Augusta Victoria, H.T. Pink: La France, H.T.; Mrs. John Laing, H.P. Cherry or light red: Mrs. W. J. Grant, H.T.; Ulrich Brunner, H.P. Scarlet or dark red: General Jacquemont, H.P.; Grüss an Teplitz, H.T.

No one will dispute the right of Frau Karl Druschki to be the finest all-round white Rose in cultivation. All the same it requires thoughtful planting, as in a mass it gives a hard and cold effect—somewhat similar to that given by the snow white Clematis Jackmanii. No other white (or so-called white) variety will bear comparison with it, certainly not Bessie Brown, which has a plethora of faults from a garden point of view. First of all, this Rose has the grave fault of

Maman Cochet in that it hangs its head. Then it is terribly sensitive to wet and thrips, and inclined to "paste" up even after a heavy dew. On light soil it is a dismal failure, and only on rich soil and with careful cultivation will it come good. Where, then, are its good points as a garden Rose? [We pointed out at the time that Bessie Brown is not a good garden Rose.—Ed.] I have long ago dispensed with its services in this garden, and I propose to amend this list by leaving it out and bringing Kaiserin Augusta Victoria forward to fill its place. Certainly from a garden point of view its effect in a mass is undoubtedly white, and it is always exhibited as a white at the National Rose Shows, and, indeed, it has almost as much right to be called white as has Bessie Brown. Of course, Kaiserin, like any other Rose, has its faults. For garden decoration it must be lightly pruned, and this makes it grow so tall that the growths are not strong enough to support the wealth of bloom. Remembering its upright habit, plant it thickly; encourage the strongest shoots from the base of the plants, and pinch out all the weak ones. With me it is not at all at its best in the full sunshine, but is grateful for a little shade.

Viscountess Folkestone is worth a place in every garden, though for effect La Tosca surpasses it with ease. I should place La Tosca first, as it is a magnificent grower, very hardy, marvellously floriferous, and opens well in the wettest weather. I do not dispute that the flower is thin and opens easily—too easily, perhaps—and from the "show" point of view possesses plenty of other bad qualities; nevertheless, in spite of all this, I am so impressed with its virtues that once again I give it a cordial recommendation.



ROSE EUPHROSYNE IN THE ROYAL GARDENS, KEW.

To-day (the 11th inst.), after a fortnight's bad weather, I can cut sheaves of blooms from this variety, and the display it makes in the garden is really wonderful.

Augustine Guinoisseau or Viscountess Folkestone would take the place of Killarney, which cannot be called flesh colour by any stretch of imagination. On a light soil the latter of the two is not to be as much recommended as the former, so that here I should certainly use Augustine Guinoisseau. Antoine Rivoire in northern gardens is scarcely hardy enough, though with me it is a most constant Rose.

In selecting yellows from among the Hybrid Teas there is always a difficulty, because we have no kinds which produce a really yellow effect at a distance, such as Comte Chandon and Mme. Honoré Defresne do among the tea-scented varieties. Gustave Regis is indispensable in the garden, but its effect is not yellow, but cream, and for bedding I consider it too tall. Moreover, it does not endure hard pruning, and cannot therefore be kept dwarf. As a hedge or background to dwarfier growing varieties it is of immense value, and as a bold, large-headed standard it is unsurpassed. After a thoroughly good trial in this garden, as well as watching its behaviour in Mr. H. J. Stobart's Rose garden at Belbroughton, I have come to the conclusion that Amateur Teyssier is one of the finest of all the creamy yellow Hybrid Teas, good alike in growth and foliage, and of proved hardiness. I saw it at Cheshunt in July last, and it was smothered in blossom, but, unfortunately, in hot weather its effect is only creamy white; in the autumn its colour is quite reliable. Though classed among yellow Roses, the effect of Mme. Pernet-Ducher in a mass is simply white, as the expanded flowers quickly lose their yellow cast and quite hide the yellowish buds. In spite of this I think it is well worth a place as a white or cream-coloured variety, but certainly not as a yellow.

There is plenty of choice among the pinks, and this is where I should place Killarney, though it has the great defect as a bedding Rose of being very liable to mildew. Caroline Testout is much

hardier and of stronger growth, but it lacks fragrance, and so has to give way to La France. This latter, by the way, opens best on light soil, and is all the better if its living is not too rich, as this encourages it to come "ball"-shaped. For my own part I should have placed Grace Darling before Mrs. John Laing, as this latter is not a good shade of pink, and certainly not so floriferous on light soil.

None of the pink Hybrid Perpetuals are as free in the autumn as the Hybrid Teas, and while kinds like Mrs. Sharman Crawford may make an imposing display for a short season, they can in no way take precedence of them. Of shades intermediate between cherry and light red we have a considerable number. If Mrs. W. J. Grant and Ulrich Brunner can be correctly classed together under this heading, then we may infer that the intended range of colouring is elastic enough to include Mme. Jules Grolez, Lady Battersea, and Grand Duc Adolphe de Luxembourg, as all these have a red or rosy red effect when massed. On the whole, I should accord pride of place to the Grand Duke as being inimitable as a light red, and Lady Battersea as a cherry crimson. The former is hardy, good in foliage, not addicted to mildew, not much injured by bad weather, and decidedly free. The latter variety has not received the attention its great merits deserve. I had half-a-dozen plants at the time it was sent out, and its fine upright habit, long flower-stems, brilliance of colouring, and freedom have won golden opinions from all my gardening friends. It is a superb autumnal, and, considering that there is a great deal of Tea blood in its constitution, it is pretty hardy. It should, however, be planted thickly, as it is a thin grower. With the scarlet or dark red selection I am satisfied, though Commandant Felix Faure would be a satisfactory exchange for General Jacqueminot. The colour of the General in the autumn has never pleased me, and in this respect the Commandant appears to be superior.

Space, or rather the want of it, has only allowed me to discuss Question I., but in a

subsequent issue I shall hope to refer to the other questions.

Worcestershire.

ARTHUR R. GOODWIN.

ROSA LÆVIGATA (MICHX.).

THE accompanying photograph shows a plant of the above Rose growing in the Botanic Gardens, Hong Kong. The species is a native of Hong Kong and China, and when in full flower on the hillsides, where it is seen by the hundred, it is a sight long to be remembered. The flowers are produced singly at the ends of the branches, and are white, about 3 inches or 4 inches across. It has several synonyms, of which *Rosa sinica* of Aiton and Lindley, but not of Linnaeus, is perhaps the best known, although in America, where it has become naturalised, it is known under the name of *Rosa cherokeensis* or the Cherokee Rose.

W. J. TUTCHER.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

DECORATIVE RUNNER BEANS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—If we have ornamental Gourds in our gardens, why not ornamental Beans? At a recent meeting of the Royal Horticultural Society's fruit committee there was exhibited as a plant in fruit a climbing Runner Bean, the pods of which were yellow, beautifully flaked with deep red colour. This was sent under the name of Firefly. It was identical with a variety grown some years ago at Chiswick, the name of which had escaped my memory. However, I found it amongst the huge number of varieties of Runners being grown in Messrs. Sutton and Sons' seed farm at Reading, where it was growing and podding finely under the name of Coco de Vacqueries. The pods, slightly curved, were 6 inches long, and the seeds, rather egg-shaped, are, when ripe, lemon, striped red. It is a most ornamental Bean. With this might be associated the purple-podded Bean, also seen at Reading, and podding most freely. The pods are of a rich violet-purple colour, and are markedly pleasing by contrast with those of the golden Butter Bean Mont d'Or, for these are of a golden yellow and very ornamental also.

To see these Beans at their best they need to be trained up and over arches, as then the pods hang down, and the three in combination are singularly pleasing. But the most remarkable decorative climbing Bean is one at Reading, absolutely distinct and new. Its growth is about 8 feet in height, stems and leaves very dark, pods produced in racemes, short, broad, flattish, and almost bronzy black. The flowers, however, are distinctly beautiful. They are stiff and erect, and much resemble in appearance and colour those of *Lathyrus latifolius*, but are bluer. When seen the other day flowering profusely it certainly did present, as an outdoor annual climber, attractiveness and beauty quite remarkable.

A. D.



ROSA LÆVIGATA IN THE BOTANIC GARDENS, HONG KONG.

PLANTS MENTIONED BY
SHAKESPEARE.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In reply to S. Lloyd, North Wales, Love-in-Idleness is *Viola tricolor*, the Pansy Violet or Heart's-ease of our fields. Long Purples is *Lythrum Salicaria*, the purple Loose-strife, so common, yet very beautiful, by the side of our rivers and in damp places in summer. The poet Clare also alluded to it when he wrote:

"When on the water oped the Lily buds,
And fine Long Purples shadowed in the lake."

Mary-buds is *Calendula officinalis*, the common Marigold. A. O.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Noticing in your issue of the 9th inst. an enquiry as to the identification of names used by Shakespeare for plants, I find three of the four given by Prior in his "Popular Names of British Plants," an interesting book: 1, Love-in-Idleness, or Love-in-Idle, i.e., in vain, a name of the Pansy—*Viola tricolor*; 2, Buckler's Berry—not given; 3, Long Purples, "Hamlet," Act IV., scene 7, supposed to be the purple-flowered *Oreochis O. mascula*; 4, Mary's Bud, or Mary-bud, "Cymbeline," Act II., scene 3, the Marigold, in allusion to its flowers closing at sunset—*Calendula officinalis*.

Maidstone.

F. S.

LILIUM AURATUM IN NEW
ZEALAND.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I am sending under separate cover a copy of the *Canterbury Times* just to let you see how the Auratum Lily grows in New Zealand. It was grown in the border without any protection. I appreciate THE GARDEN very much.

Ashburton, New Zealand.

G. JESSON.

[We thank our correspondent very much for sending the journal. The illustration shows two very fine plants of *Lilium auratum*; one of them carried nearly 250 blooms.—Ed.]

NICOTIANA SANDERÆ.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I entirely endorse the opinions of your correspondents in THE GARDEN of to-day with regard to *Nicotiana Sanderæ*. I am much better pleased with it than I dared hope in my own garden, where plants, grown under somewhat adverse circumstances, are between 3 feet and 4 feet high and covered with flowers which, though not quite as large as those of *N. affinis*, are far more abundant, while at Sandhurst Lodge, where it has been used between standards of *Hydrangea paniculata*, at the back of the straight borders leading to the water garden, the effect of the crimson cloud of blossoms round about the great white panicles is most striking.

ROSE E. KINGSLEY.

Keys, Eversley, Winchfield.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I should like to add my testimony to the value of this annual, though I cannot agree with Mr. Williams as to their doing best in clumps. They seem here to require lots of room, the only one of my plants that really had room being over 3 feet high and more than 4 feet through. It has been a mass of flower since the end of June. Although only growing a few plants I have had great variety in colour, from cherry red to deep plum. I have self-sown seedlings in flower which I think remarkable.

THOMAS CRADOCK.

Old Eden, Glenties, County Donegal.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I have been interested in the various notes about this plant in THE GARDEN. It is curious that there should be so much difference of opinion

respecting it. Some of the flowers are of a lighter colour than others, but its habit is all that can be wished for. The colour is pleasing, but the flowers with me are small and scentless. As Mr. Snooks says, it should be planted in full sun. I have some planted in full sun, while others are in partial shade. Those in full sun are the brightest in colour, but when the sun was bright and hot my plants looked withered. The weather here of late has been dull and wet, and the colour now of *N. Sanderæ* is beautiful. I find by cutting late in the afternoon or evening the flowers will keep open for table decoration, but if cut in the morning they close and never open again, and look miserable during the daytime.

J. HIGGINS.

Corwen.

[TO THE EDITOR OF
"THE GARDEN."]

SIR,—I have read with much interest the various accounts given of the success or otherwise of *Nicotiana Sanderæ*. I have grown five plants in a mixed border, enjoying full sun until about three o'clock in the afternoon. They are now about 6 feet high, and in the morning sun a perfect picture. Two of the plants have small flowers, the colour being of a dull red and not pleasing, the other three plants, however, although raised from the same packet of seed, have large flowers, quite as large as *Nicotiana affinis*, and of a very bright crimson shade. At first, when the smaller flowers only were out, I was also disappointed, but having seen the larger and brighter flowers, I think it is a decided acquisition.

ALFRED HAMMOND.

London Road, Salisbury.

ROSE THALIA.

(MULTIFLORA.)

RAMBLER ROSES are apt to be too hastily judged. For instance, anyone seeing a small spray of blossom upon a young plant of *Thalia* would form a very poor opinion as to the merits of this variety. But if one saw the same plant in three or four years' time with vigorous growths wreathed with grand trusses of snow white blossoms, then its value would be



ROSE THALIA ON STUMP OF SEQUOIA GIGANTEA AT WANLIP HALL, LEICESTER.

(From a photograph kindly sent by Sir Archdale Palmer.)

appreciated. We had beautiful Rambler Roses in *Félicité Perpétue* and Bennett's Seedling long before *Thalia* appeared, but they have not such grace and elegance as may be found in the multiflora hybrids. With *Thalia*, as with *Aglaia* and *Euphrosyne*, the yellow and pink Ramblers, one must spread out the growths well and avoid pruning them to any great extent. These Roses bloom early in June, so that if one were to plant them as companions to *Crimson Rambler* disappointment would follow. The best white contrasts to the *Crimson Rambler* are *Félicité Perpétue*, *Mme. d'Arblay*, Bennett's Seedling, and *Manda's Triumph*. A few sorts that blossom simultaneously with *Thalia* are *Ruby Queen*, *robusta*, *Blairii No. 2*, and *Climbing Belle Siebrecht*. If these were planted near *Thalia*, together with any of the *Penzance Briars*, borderings of dwarf bushes of the yellow *Austrian Briar Harrisonii* and the miniature *Provence De Meaux* and *Spong*, and some Scotch Roses, a very charming group would be secured. There is a more recent variety

of Thalia which is perpetual flowering, but its growth is quite dwarf compared to the rambling type; it is, however, very useful for 3-feet to 4-feet-high hedges, and it is practically always in bloom. This variety should be the basis of some useful perpetual-flowering hybrids.

ROSE FRAU LILLA RAUTENSTRAUCH.

HERR LAMBERT, the raiser of Frau Karl Druschki, has been very fortunate in obtaining this charming Hybrid Tea, and it is likely to be much grown. Like many of the Hybrid Teas, the colour is totally different under glass and when grown outdoors, which accounts probably for the widely diverse descriptions of this Rose to be found in catalogues. Outdoors the colour is rosy white, with a rich shading of apricot, the blossoms becoming deeper in the apricot tint towards autumn; under glass the orange yellow colour predominates. The blossoms are large and very full. The flowers are produced very freely, but as they are somewhat heavy they have not the decorative effect that would otherwise be the case. Apart from this fact, those who value the Hybrid Teas (and who does not?) will find in this novelty a Rose of sterling merit, and it should be noted for procuring during the coming planting season, and also for forcing under glass. It is reputedly a cross between Caroline Testout and Goldquelle. We are indebted to Messrs. Benjamin R. Cant and Sons, Old Rose Gardens, Colchester, for the photograph of this beautiful Rose. This and other new sorts are very fine in their nurseries.

JOTTINGS ABOUT ROSES.

(Continued from page 177.)

MANNERS AND CUSTOMS.

ANTOINE RIVOIRE.—I first made the acquaintance of this Rose through the fine coloured plate of it given in *THE GARDEN* for 1899 (Vol. LV.), and should have made haste there and then to secure a plant had it not been for the bad character given to it by M. Vigneron of Orleans. According to this gentleman, as quoted in *THE GARDEN* for January 28, 1899, "it is extremely troublesome, and not at all vigorous. In hard winters it is very apt to perish in the frost, and even in summer the wood often becomes black and perishes." Not a very encouraging character for a Rose that is making its *début* before the public. However, I must, with the Editor's permission, accuse M. Vigneron of libelling the fair name of Antoine Rivoire.

It certainly does require looking after during the winter, but, so far as its vigour is concerned, there is really nothing to complain of. Both as a dwarf, half standard, and standard it is magnificent, and even if badly injured by frost its power of recovery is nothing short of marvellous. Perhaps it shines most as a half standard, and we were so delighted with it last season that we took the precaution to bud some more in this form. Although the winter was a disastrous one for Roses in these parts, yet not one of these buds was injured, and this in spite of the fact that not the slightest protection was given. Then as a bedding Rose it is superb, and only a short while ago I saw a charming bed of it in Mr.

to delight in a warm, well-drained soil and position. Does not require hard pruning, and makes fine shoots from the base. Raised from Tea Dr. Grill × Lady M. Fitzwilliam.

Ferdinand Batel.—This is not a strong grower, and is most remarkable for its great variation in colour. This season, especially, its colouring has been most attractive, usually pale flesh with nankeen yellow centre, at other times a most glorious shade of orange. It is hardy, short in the wood, and rather thorny. Flowers globular, full, and not particularly fragrant, on stiff upright stems.

Ferdinand Jamin.—When I ordered a label for this Rose, the maker in his wisdom sent me one marked "Mme. Ferdinand Jamin," which is the same as American Beauty, and a poor thing compared with the one under notice. I remark this here in order to prevent other people from confusing the two varieties. Ferdinand Jamin is an exquisite Rose, a good grower, and one of the hardiest. Flower globular, sweet scented, and of fair size; colour, deep rose shaded with salmon, something of the Mme. Abel Chate-nay colour, but distinct in every way from that variety; wood erect and well set with thorns. Should be lightly pruned.

Mme. Eugénie Bouillet.—This is a sturdy but not strong grower, with erect glaucous wood and no thorns. Flowers globular and borne in fine trusses; colour, bright China rose, shaded with rose, and suffused with yellow at the base of the petals; only very slightly scented. A decidedly distinct and attractive variety, but has not proved very hardy in this garden. Foliage dark green, leathery, and shiny.

Violoniste Emile Lévêque.—A first-rate Rose when well grown and fairly large. Flower rather flat, colour a peculiar blending of rosy carmine, yellow, and orange. A good grower with fair foliage, but inclined to be rather tender. Not much known, but still worth a place even amongst recent novelties.

Souvenir de Mme. Ernest Cauvin.—The growth and foliage of this variety closely resemble that of Antoine Rivoire, and I should imagine that it emanated from the same source. Flowers of medium size on stiff stems; colour, flesh,

changing to white with yellow centre. A good grower, free in bloom, pretty hardy, sweetly scented, free from mildew, and quite thornless.

Mme. Ravary.—Of dwarf bushy growth, with good dark green foliage and tolerably hardy. This is recognised as one of the very finest bedding varieties among the yellows, but unfortunately it has the prevailing fault of fading almost white in hot weather. The catalogues tell us that "the buds are golden yellow, open flowers, orange yellow," but, alas! the revised description made on a sunny day would have to read "buds yellow,



ROSE FRAU LILLA RAUTENSTRAUCH.

(From a photograph taken in the nurseries of Messrs. B. R. Cant and Sons, Colchester.)

M. Tomkinson's fine Rose garden at Franche Hall, in this neighbourhood. The wood is stiff, glaucous, with few thorns, and the flowers are carried on upright stems. In bud this variety is exceedingly attractive, the colour then being a rosy flesh suffused with yellow and edged with carmine. The flowers quickly pale with age, and are then Camellia-shaped and rather flat, generally measuring from 3 inches to 5 inches across. Unfortunately, they possess but little scent. The foliage is dark green, leathery, well glazed, and free from mildew. On the whole Antoine Rivoire stands bad weather well, but seems

changing to almost white." However, in *Le Progrès* this fault is somewhat rectified. Buds pointed, flower semi-globular, makes a fair standard, and is rather addicted to mildew.

M. Bunel.—This differs but little from Antoine Rivoire, and though not quite as good is well worth growing. Growth and foliage almost identical; flower a trifle flatter, but the bud is even more beautiful than the last-named variety. Colour rosy peach edged with pink, base of petals suffused with light yellow. Very sweet, free from mildew, hardy, and a good bedder.

Mme. Paul Olivier.—Another fine Rose, but not of such value as the preceding variety, as its colouring is not so distinct. A vigorous grower with erect wood well set with thorns; foliage dark bronze green, free from mildew. The buds are long and pointed, opening into large, globular, fragrant flowers; colour a blending of salmon-flesh and rosy carmine. I have not grown it long enough to speak as to its hardiness. Its chief characteristic is its floriferousness. A. G.

The Elms, Kidderminster.

(To be continued.)

ROSE MRS. COCKER

(H.P.).

ALTHOUGH pink Roses abound in all classes, there is not among the Hybrid Perpetuals a more beautiful or useful kind for the exhibition than this variety. Its flowers are of a lovely soft pink, resembling those of Baroness Rothschild in tint, but the blooms are large and full, with a high centre. Their good form gives them much value in the opinion of Rose judges. The growth is vigorous and the foliage ample, and this



ROSE MRS. COCKER. (Introduced by Messrs. J. Cocker and Sons, Aberdeen.)

Rose is very free flowering, although not a good autumnal. Its merits were recognised by the National Rose Society awarding it their gold medal in 1898. Mrs. Cocker would make a good standard, excepting that its growth is rather rigid; but it will, by careful pruning to buds pointing outwards and relieving the centre of superfluous growths,

soon form a shapely head. As with most of the Hybrid Perpetuals, disbudding should be freely adopted where quality of flower is aimed at. There are very few of the pink Hybrid Perpetuals that are good autumnals. Exceptions are Mrs. R. G. Sharman Crawford, Mrs. John Laing, Pride of Waltham, and Mlle. Eugenie Verdier.

AUTUMN FLOWERS.

THE illustration represents white Phloxes grouped together at the bottom of a long herbaceous border in a garden in Kent. One would suppose that nothing was more obvious than the effectiveness of masses of one plant. There are object-lessons everywhere in Nature—on the mountains, in the woods and the meadows, and by the riverside. The gardening Press, too, has urged this kind of planting, illustrated it, and denounced vigorously the spotty gardening of the average modern villa. Apparently the spotty gardener cannot "change his spots." I have given quantities of this white Phlox to friends with nice country gardens, only to find it become a thing of no account when mixed with other things at wide intervals in order "to make it go further." It is possible to mix good things together and still have fine bold effects. For instance, on the left side of the picture, planted among the Phloxes,

is one of the finer Starworts of a delicate mauve (*Aster Amellus*). Thus the Starwort, which is inclined to "floppiness," has the support of the firmer stems of the Phlox, and coming into flower later secures a succession of bloom on the same spot.

SYDNEY SPALDING.

South Darenth, Kent.



WHITE PHLOXES IN A KENTISH GARDEN.

GARDENING FOR BEGINNERS.

SIMPLE HINTS.

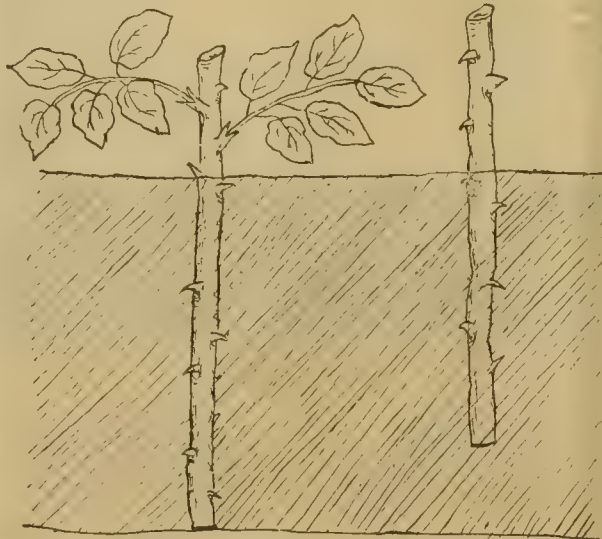
PLANTING ROSE CUTTINGS.—This is the best month for planting Rose cuttings outside. Prepare a bed in a shady position, but not under trees. The object is to do away with the necessity of much watering. For every cutting to form roots there must be an equable condition as regards moisture, and in a sunny position this condition cannot always be secured without a good deal of watering, and this often means irregularity in the supply. The experienced propagator knows that though there must be moisture in the soil, the result is better when it is there under natural conditions. In selecting and preparing the cuttings, take healthy, short-jointed shoots from the upper part of the bushes, from vigorous plants only. The cuttings of weakly plants may grow, but they are usually failures afterwards. I do not think we should lose much, and should save ourselves a good deal of heartburning, if all weakly, delicate Roses were destroyed and the perpetuation of only sturdy, robust varieties insisted on. In making the cuttings, have them from 8 inches to 9 inches long. Cut with a sharp knife just beneath a joint, but close to it. If a bit of old wood can be obtained to form a base, that will be an advantage, but most cuttings will grow without it under favourable conditions. Soft, sappy shoots are not so much use for propagating outside at this season. Bury the cuttings at least half their length in the ground. Let the bases of the cuttings rest on firm ground, or at least see that the bases of the cuttings are firmly fixed in the ground. If "hung up," as it is termed, the moisture drains away and roots will not form. Plant the cuttings in rows 1 foot apart, and 6 inches apart in the rows. Make the cutting-bed reasonably firm. I have generally planted the cuttings by making a niche by thrusting in the spade by the side of the line to the right depth, pressing the spade a little each way to secure an opening. The cuttings are then thrust in until their bases rest on the bottom of the niche made by the spade, and are then made firm by treading. When one row is planted and made firm the line is moved to the next position and the operation repeated so long as any cuttings remain unplanted. Of course, the cuttings are not left lying about exposed. Very often cuttings are gathered and prepared on wet days, and laid in on a shady border till the soil is in a suitable condition for planting. After planting mulch with rather rough leaf-mould.—H.

Culture of Achimenes.—These beautiful Gesneraceous plants are not nearly so much grown as they ought to be, considering their decorative value. When the flowers fade and the plants are exhausted by flowering, they are gradually dried off and are kept dry and cool during the winter. Usually the pots are laid on their sides under the stage in the greenhouse till February, when the scaly tubers are started again into growth in heat. Sometimes they are shaken out and started in pans or boxes in a warm pit or house, and when 2 inches high they are made up in pots, pans, or baskets. Five or six plants will be enough for a 5-inch pot; the same proportion can be used in pans or baskets. When well grown in baskets, and coming into flower, they can be hung up in the conservatory. For this work the basket should be made of wire, and of

considerable size. If grown in pans the latter may be 10 inches in diameter to make good specimens. Well-grown plants in 5-inch or 6-inch pots are nice for a change in the drawing-room or for dinner-table decoration. The compost should consist of equal parts loam, fibrous peat, and leaf-mould, with a very free admixture of sharp clean sand. The pots or pans must be well drained. During the early stages of growth they should have a night temperature of 60°, with enough ventilation to ensure sturdy growth. When well established and growing freely, pinch out the terminal ends to increase the number of flowering shoots and keep them dwarf. If desired, cuttings may be made of the tops, as they root freely in a brisk bottom-heat, and the cuttings, if left to flower in the pots in which they were rooted, will make useful dwarf dense plants for table use. The following are good varieties: Annette (violet), Celestial (white), Diadem (red), Estelle (pale rose), Longiflora major (bluish violet), Amy van Houtte (blue, with yellow

(Cockscombs) in a groundwork of the variegated Cocksfoot Grass (*Dactylis glomerata variegata*); red Celosias over a groundwork of *Leucophyta Brownei*, a white-foliaged plant, very close-growing and light. These beds are light and graceful for late summer and autumn beds, and might follow late Tulips, or *Ranunculuses* could be cleared off in time.—H.

Beds of One Kind of Rose are in some gardens taking the place of the usual mixtures, and are planted from 18 inches to 2 feet apart. When beds of Roses are planted on the lawn this is a step in the right direction, but the idea is not new. I have seen this carried out in Worcestershire and elsewhere many years ago with such sorts as *Geant des Batailles*, *Acidab*, *Jules Margottin*, *Maiden's Blush*, *Gloire des Rosomanes*, and others which are not grown much now, being superseded by *La France*, *Mrs. John Laing*, *Bouquet d'Or*, *Caroline Testout*, *Mrs. W. J. Grant*, *Clara Watson*, *England's Glory*, *Grüss an Teplitz*, and others. Masses of China Roses planted round the edges of the shrubbery or in the wild garden are becoming rather conspicuous in good large gardens, where many fresh features are being introduced. Among the Chinas which I have seen used effectively are *Aurora*, *Blanc Unique*, *Cramoisi Supérieure*, *Fellenberg*, *Hermosa*, *Laurette Messimy*, *Mme. Eugène Resal*, *Queen Mab*, and *Ducher*, and to these the common red China must always be added. All the above are best on their own roots, to escape the trouble of suckers, and they are easily propagated during this or next month from cuttings. All who love Roses and are not altogether given over to the Rose show fever should plant groups of Chinas. They are not particular about soil, but it should be well broken up and what manure can be spared added. Of course, the beds for Hybrid Teas and others on the lawn must be well prepared.



AUTUMN ROSE CUTTING
PROPERLY INSERTED.

CUTTING IMPROPERLY
INSERTED.

throat), *Loveliness* (magenta), *Masterpiece* (violet-rose, white centre), *Semiramis* (vermilion), and *Dr. Carey* (pale rose).

The Ceanothus as a Bush.—The different varieties of the *Ceanothus* are often met with in good condition as wall plants, and they flower at a time when flowering shrubs are scarce, but they also do well in sheltered borders in bush form. Two very distinct and useful sorts are *C. americana* var. *Carmen* and *C. grandiflora*. These are now flowering freely in a large bed at Kew.

Some Effective Beds.—In many gardens this season the small-growing fibrous-rooted *Begonias* are taking the place of the large-flowering tuberous sorts, and the effect is better when they are planted thick enough to make full beds. I noticed in the Royal Gardens at Sandringham that the small scroll garden was planted entirely with the small-leaved *Begonias*, and they are used largely at Kew and elsewhere. Some of the most effective varieties are *worthiana*, *ascotensis*, *echinosepala*, and *Mrs. Bert Currie*. These can easily be propagated from cuttings in heat in spring or raised from seeds. Yellow *Celosias*

Some Good Late Pears.—We have generally too many autumn Pears, but late Pears are often scarce, especially after Christmas. Late Pears must have a good aspect, as sunshine and warmth are necessary to perfect the fruit, which must be carefully managed in the store, and, if possible, it should be kept separate from the early sorts. Most of the late Pears are improved by being finished off, a few at a time, in a temperature of 60°. This brings up the flavour, and it may be made to extend their season of ripening. This may be applied to such kinds as *Marie Louise* and *Doyenné du Comice*, which are two of the best of the late autumn Pears. The best Christmas Pear to my mind is *Glou Morceau*. To have this really fine, grow it on a wall with a good aspect and keep the roots out of the bad subsoil. I have had it quite as good in flavour from pyramids, but the fruits were not so fine. But on some soils, when the roots are permitted to run down, some of the fruits crack and are attacked by a black fungus, which spoils the fruit. We used to have *Knight's Monarch* good in Worcestershire in all forms, and it is still worth growing. *Passé Crassane*, *Le Lectier*, *Bergamotte Esperen*, *Josephine de Malines*, *Olivier des Serres*, and *Beurré Rance* are all good under favourable conditions. The last named when grown in a sunny position is really good in March. I have had it remarkably good in flavour

from espaliers in a sunny position. I had a friend who had a large tree of this variety on the gable end of his house, which it completely covered, and I never knew it fail to bear a good crop. The fruits were always fine and of excellent flavour. The aspect was south-west, and the projecting eaves sheltered the blossoms in cold springs. Winter Nelis must not be left out, for, though it is small, it is good in flavour and usually bears well. I have seen all the sorts named do well on the Quince as double-branched cordons, trained obliquely, and I have also had them good on the Pear stock, trained in the same way on a lofty wall. I think where the wall is not less than 12 feet high I would prefer them on the Pear, as by root-pruning it is easy to make them bear, and the Quince is not suitable on dry soils unless well nourished.—H.

Good Ivies for Covering Walls.—The three most distinct Ivies for covering walls in a pleasing manner are *maderensis variegata*, white variegated, with broad handsome foliage; Mrs. Pollock, the foliage having something of the colour of the foliage of Mrs. Pollock Geranium; it is fairly free of growth. The best green Ivy is Emerald Gem, a very close-growing, dark-leaved variety, which clings closely, and rapidly covers a wall or fence.

Rose Mme. H. Levassieur.—This is a dwarf double form of the Crimson Rambler, and is very free blooming, being of a quite perpetual habit. It makes a good pot plant, and is just as free planted out. Will make a good group on the lawn, strikes freely from cuttings, does well on its own roots, and there is likely to be a brisk demand for it.

Planting Snowdrops.—These ought now to be in the ground. They are not so well adapted for formal gardening as for grouping round the margins of the lawn or where they can be sheltered from shrubs and partially shaded without being much exposed to drip from heavy foliaged trees. They thrive best in a light sandy soil, but I have seen them do well in the Fens. I know a Fen farm where the orchard, which is of considerable extent, is white all over with Snowdrops in early spring; the shade of the fruit trees seems to suit them. They are lifted every two or three years, the large bulbs taken out and sold, and the small ones planted. The owner of the orchard once told me he had made as much as £30 for his surplus Snowdrops in one season. They are planted in shallow drills when grown in this wholesale way, and covered from 1 inch to 2 inches deep. There are a very large number of species and varieties of Snowdrops which have been gathered from different sources or raised from seeds. *Galanthus nivalis* is the common form, of which there are both single and double-flowered kinds. The Crimean Snowdrop (*Galanthus plicatus*) was introduced about the time of the Crimean War, but has hardly become common even now. The foliage is broader and the flowers are larger than the common variety. Among other desirable kinds when a collection is being formed may be named *G. Imperati*, *G. Elwesii*, *G. latifolius*, and many others, some flowering earlier and others later than the common form.

Dendrobium devonianum.—From Modwena, Penkridge, Staffs, Mr. Arthur A. Bewley writes: "I am very pleased that you will use the photograph of the beautiful *Dendrobium devonianum*. My friend Mr. John Freakley, in whose garden the photograph was taken, though only an amateur, takes a great interest in Orchids, which he attends to entirely himself. The plant shown in the illustration is a newly-imported one. It was started in heat, and produced 144 blooms on nine bulbs."

Pyrethrum uliginosum.—It seems difficult to name a white-flowered hardy perennial which



PYRETHRUM ULIGINOSUM.
(A valuable late-flowering, easily-grown, hardy perennial.)

can compare with this for cutting at this season of the year. It is so accommodating that it will flourish almost anywhere, but deserves good treatment. A single white Chrysanthemum appears almost out of place in comparison with the usefulness of the Pyrethrum in supplying blooms at this season of the year. Owing to the dry season it has not grown to its usual height, and it has bloomed earlier for the same reason, but it is always successful. If the flowers are cut when about half expanded, they remain fresh in a cut state for a long time, and it is better for indoor decoration than Chrysanthemums, and much more lasting than the Japanese Anemone.



DENDROBIUM DEVONIANUM.

GARDENING OF THE WEEK.

FLOWER GARDEN.

PROPAGATING SHRUBS.—It is often desirable to supplement stock obtained from nurseries by increasing choice shrubs already established in the garden. The present is a favourable time to prepare and insert cuttings of various choice and rare shrubs, for the wood has just the right degree of firmness. Those enumerated below will generally strike out of doors from such wood. Select a site as suggested in a recent calendar, and having got the soil to a friable condition, tread it over when the surface is dry to solidify it, thus rendering it practicable to cut open the drills with a spade, and leaving a firm and even edge behind it. These drills should be opened to various depths in proportion to the length of cutting to be put in. As a general rule it is advisable to bury cuttings of this nature to within a few inches of their points, for the twofold reason that (a) protection from frost can be easily applied to the tender kinds, and (b) to minimise the damaging effects of drying winds and sun on the sap until root action commences. If the soil, such as heavy cold clay, is of an unsuitable nature for promoting root formation, obtain sandy soil and fill up the trenches with it, making all firm by treading alongside the cuttings. Dig the required space for the next drill and repeat the operation until the whole are in. Cuttings taken off with a heel are generally the most satisfactory as far as shrubs are concerned, and if too long always shorten the top and not the bottom. Never use a blunt knife for trimming them, nor tolerate anyone else doing so, for many failures are attributable to this cause. When all are inserted, the beds edged and neatly trimmed, the various sorts labelled, and all squared up, mulch over the whole with partly-decayed leaves or similar light material, and before severe weather sets in protect, especially the more tender kinds, by covering over with Bracken or other loose, open material. It is as well with even the hardy ones not to allow frost to penetrate into the ground to any great depth, for it lifts out the cuttings, and it is difficult to fix them as firmly as is necessary after being once disturbed.

THE FOLLOWING SHRUBS and others of a like nature treated on these lines will strike more or less satisfactorily, and eventually be useful and at hand for filling up clearings of coarser things and many other purposes, for one can always find a place for a good thing: *Ceanothus*, *Myrtles*, *Buddleas*, *Fuchsias*, *Hydrangeas*, *Laurustinus*, *Aloysia citrodora*, *Choisya ternata*, *Indigofera gerardiana*, *Abelia rupestris*, *Lavender*, and *Rosemary*. The above are rather tender, so will require more shelter and protection than such as *Euonymus*, *Gum Cistus*, shrubby *Spiraeas*, *Azara*, *Berberis*, *Hypericum*, *Weigela*, *Diplopappus chrysophyllus*, *Deutzias*, *Philadelphus*, *Oleasias*, *Elesagnus*, *Lycasteria formosa*, *Staphylea*, *Griselinia littoralis*, &c.

PLANT DAFFODILS in beds and borders, and also in quantities on the grass in the wild garden, on the outskirts of lawns, and in more or less open glades in the woodlands. Avoid stiffness and formality above all things in planting such places. Observe the "lie" of the ground, and follow it to some extent, running clumps and masses in and out among trees and other objects. Select spots for planting where the soil is fairly good, and as free of tree roots as possible in the circumstances. J. ROBERTS.

The Gardens, Tan-y-bwlch, North Wales.

INDOOR GARDEN.

AURICULAS.—Stand the plants in a convenient position where they can be looked over for the least signs of decay. It seems almost impossible to prevent a plant occasionally going off, so that constant attention is necessary. Do not neglect the plants because winter is approaching. Next month many of the leaves will decay till scarcely more than the crown is left. Water sparingly, and then only to prevent the soil becoming dust dry.

VALLOTA PURPUREA.—This is one of the few plants that will grow and flower almost, if not quite, as well in the window of a dwelling-house as in the cool greenhouse. Well-established plants can usually be relied on to give a good display of flower during August and September. The variety *magnifica* is a great improvement on the type, with larger and better-shaped flowers. After flowering less water will be needed, but never allow the plants to die right down. From 6-inch and 7-inch pots well filled with bulbs plenty of flowers are usually to be obtained, provided they are fed liberally during summer. After flowering stand them on a light shelf in a cool house. The present is a suitable time for repotting, but this is seldom necessary if the stock of bulbs is sufficient.

WINTER-FLOWERING PLANTS, such as *Jacobinias*, *Peristrophe speciosa*, and *Thrysanthus rutilans*, may be given a slight top-dressing of good loam and artificial manure, or a little of the manure sprinkled on the surface, and the soil pricked over with a pointed stick. To develop the bracts properly *Jacobinia coccinea* should have stove treatment. *J. ghiesbreghtiana* and *J. chrysostephana* are best in a warm greenhouse. Cut back several plants of *Begonia Gloire de Lorraine* and Turnford Hall to obtain a few cuttings for very early work next year.

ALLAMANDAS.—The early plants having finished flowering, the shoots can be shortened back, and if in pots or tubs of a convenient size for removal, may be placed in a cooler house of about 55° Fahr., gradually reducing the supply of water. The late-flowering plants should have the lightest position available in the stove.

SHOW PELARGONIUMS cut back and started into growth are ready for shaking out and repotting, as advised in a

previous calendar. Place them near the glass in a pit or sun if the growths flag at all. House the scented-leaved varieties, and put in cuttings to provide a stock of plants for next summer. Shoots of several of the varieties are especially useful to cut as foliage for arranging with cut flowers of the zonals. These need not be given an important position in the house, as if drawn a little it improves the value of the foliage for cutting.

CAMELLIAS set thickly with buds should be thinned. Fork a little soot and bone-meal into the beds if planted out, giving weak manure water to those in pots.

LILIUMS AURATUM AND SPECIOSUM can be stood outside after flowering, permitting the stems to die down gradually and the bulbs to ripen. They may be used for pots again next year, but I think it preferable to plant these out and buy new imported bulbs for pots.

Royal Botanic Gardens, Kew.

A. OSBORN.

ORCHIDS.

THE DECIDUOUS CALANTHES of the *C. Veitchii* and *C. vestita* section are now finishing their growths, and in order to obtain strong flower-spikes, and to secure clear bright flowers, the plants should be placed near the roof glass, giving every plant plenty of space, so that each may obtain its full share of sunlight. If grown in a house with a direct southern aspect, the plants may, when the sun is very bright, require to be thinly shaded during the middle hours of the day; but those in span-roofed houses facing east and west will probably not require any shading at all, though the leaves must not be scorched. In the extra sunlight the plants will dry up very quickly, and will require plenty of water at the roots. A little manure water may still be afforded to them, being free rooting plants they enjoy liberal treatment at the roots; but it must be discontinued after the flower-spikes have made some little progress. These *Calanthes* are worthy of special and careful attention, for considering the quantity of useful bloom they produce during the winter months it is well worth growing a lot of them, so that for several months the houses may be bright and attractive. The late-flowering section *C. Regnierii*, &c., are only about half-way through their growing season, and should, therefore, be treated the same as the others were when in full growth. The dwarf-growing

LÆLIA PUMILA, and its several distinct varieties, are now flowering, and make charming little plants when suspended in various parts of the house. They are easily cultivated, and small shallow pans are the most suitable to grow them in, so that they may be suspended close to the roof glass. A small quantity only of peat, leaf-soil, and sphagnum moss in equal parts is requisite for them to root in, and this should be kept fairly moist at all times, but now that the plants are flowering and making their new growths, and until this is completed, increased supplies of water should be afforded. From the present time, and all through the winter months, the intermediate house is the best place for them. These plants are very liable to the attacks of white scale, which is very hurtful to them, and whenever it appears it must be immediately eradicated. The pretty *Epiphrontia Veitchii* may also be repotted now. It grows thoroughly well either in pots or Teak wood baskets, which may be suspended well up to the roof glass. The same kind of mixture as advised for *Lælia pumila* will suit them. Where off-shoots are attached to the old stem they may be severed and made up into neat compact little specimens. During the summer months this hybrid enjoys the cool temperature of the intermediate house, but in winter the little extra warmth of the Cattleya house is more suitable for it. Plants of

ONCIDIUM VARICOSUM that are now sending up their flower-spikes should be carefully examined, and all those that are in a debilitated condition through carrying a large inflorescence last year should have their spikes removed at once. Such plants ought not to be allowed to flower again until they have made plenty of young roots and strong pseudo-bulbs. Healthy, well-established plants that are showing spikes will need a good supply of water at the roots until the flowering season is over. The present is a good time to go over all Orchid seedlings, and those that require repotting should be done at once. These require a lot of attention, and they must never become the least dry at the roots, or insect pests will attack them and growth will be checked. They should be carefully examined for water every morning, and after attending to those that are dry give them all a slight dewing overhead with the fine sprayer. Their immediate surroundings should be kept moderately moist at all times, and they should be kept shaded from all bright sunshine.

Burford Gardens, Dorking.

W. H. WHITE.

FRUIT GARDEN.

EARLY VINES.—The wood on vines, from which ripe Grapes are expected by the end of April or the beginning of May, should now be sufficiently ripe to admit of pruning being carried out at once, as the house must be closed at the beginning of November. In the case of old vines which have been forced for a number of years, it is not advisable to prune too hard back, but make sure of at least two good prominent buds, or even more, if the spurs can be tied close in to the old rods, where they will not look so unsightly. Cleaning may receive attention as soon as the vines are pruned. Should mealy bug be present, both the house and the vines should receive a thorough cleaning. The house should first be washed with soft soapy water and the trellis painted with paraffin, working it well into the holes. All loose bark must be carefully removed from the vines, examining all the holes and crevices where the insects are likely to be secreted. Afterwards wash the vines several times with a solution of

soft soap and sulphur, at the rate of 2oz. of each to a gallon of water. The walls of the house should then receive a good coating of lime-wash. Lightly fork the surface of the border to the depth of 2 inches or 3 inches, wheel all the loose soil away, and replace it with fresh loam which has been enriched with old mortar rubble, wood ashes, and Bentley's Vine Border Manure.

FRUIT TREES IN POTS.—The present is a good time to look over pot fruit trees. Any old unsatisfactory trees should be discarded and burnt. They are not only unsightly, but also unprofitable as compared with young, healthy, and shapely trees, a good selection of which may be had at a minimum of cost from any of our large fruit growers. All pot trees should be repotted annually. This necessitates a considerable reduction of the mass of soil and roots, so that they may be replaced in the same size pots, except in the case of young trees in small pots, which may have a size larger. Lime is a very necessary constituent in the culture of all stone fruit, so that a good percentage of old mortar rubble should be mixed with the potting material; also add a good sprinkling of wood ashes, soot, and crushed bones. The trees must be placed in their new pots as quickly as possible after the roots have been disturbed. Pot firmly, taking care that the space between the ball and the side of the pot is quite filled with soil. A very thin ramming stick should be used for this purpose. Thoroughly soak the soil with clear water when potting is finished. Syringe the trees two or three times a day during fine weather. Stand them out, if possible, in a position which is sheltered from cutting winds. Any pruning necessary should be done now, but very little will be required if they were properly attended to in the matter of disbudding and pinching during the summer.

E. HARRISS.

Fruit Department, Royal Gardens, Windsor.

KITCHEN GARDEN.

TIDINESS IN THE KITCHEN GARDEN.—Appearances go a long way in these days, and even in the kitchen garden they are not to be neglected. No matter how well the crops may be looking, an untidy corner or plot of ground in any part of the garden greatly spoils the general effect. Rows of Peas that are now stripped of their crops should be cleared off without delay. The best of the Pea rods can be put aside for another season; those that are unsuitable can be burnt at the rubbish heap along with the haulm of the Peas, preserving all the ashes that come from the fire. As the good properties of these are apt to deteriorate with damp, they can be stored in old barrels or boxes, as they are certainly too valuable to be wasted. As for the weeds that are growing on garden plots at this time, I find it best to bury them deeply on some ground being turned, or about to be turned, over. Weeds at this season cannot be cleared off the ground without taking with them a considerable quantity of soil, and this means robbing the garden. Plots of Brussels Sprouts, Savoys, and other members of the Brassica family should have the lower leaves that show signs of decay picked off and buried also. This is what I consider a natural manure, and one which we are apt to lose sight of. Large weeds found growing among vegetables can also be buried; so long as they are annuals and placed sufficiently deep in the earth no further trouble will arise from them.

WINTER SPINACH that was sown some time ago wants thinning out to about 9 inches from plant to plant, and the Dutch hoe frequently worked round them when the surface of the soil is in workable order. A good dressing of soot, if applied on some calm showery day, will greatly benefit the young Spinach plants, especially if they are inclined to be small and weakly.

TOMATOES.—These have grown and fruited profusely since we had the heavy rains last month. A great many of the fine fruits now on the plants will never ripen. The best course, therefore, will be to cut those that are yet green and hang them up in some glass structure where they will get plenty of air and be fully exposed to the sun. Tie the foliage aside of those left on the plants that are colouring so that they may have the full benefit of the sun's rays. If the leaves are preserved the fruits will ripen quicker and the flavour be decidedly better.

JAMES JEFFREY.

The Gardens, St. Mary's Isle, Kirkcudbright.

SOME GOOD ROSES.

FRIQUET (TEA-SCENTED).—This is a decorative Tea Rose of more than ordinary merit. The colour reminds one of Lady Battersea when this Rose has developed its blossoms, but the buds are not nearly so shapely or the colour so deep as that charming Hybrid Tea. But I believe Friquet will be much sought after as an effective bedding Rose, for it possesses the branching and vigorous growth that gives to the decorative Teas their peculiar value. The buds of Friquet have a beautiful salmon shading upon the groundwork of rich carmine, which endows them with quite distinct individuality. We have had some useful additions to the high-coloured Teas and Chinese during recent years; but even now we are still looking for a good useful crimson that will possess the good points

of *Princesse de Sagan* as regards colour, but with a more perfect and a fuller flower.

CLIMBING KAISERIN AUGUSTA VICTORIA.—Where it grows freely the original dwarf form of the above is a Rose of great beauty and usefulness; but, unfortunately, it is not in every garden that it can be depended upon. In that case this climbing sport will be welcome. It stands in relation to the dwarf form in the same degree as climbing Mrs. W. J. Grant does to its dwarf form. Many are proving the value of the climbing Mrs. W. J. Grant, which provides them with an abundance of blossoms where hitherto they have failed with the original variety. As a free-growing bush climbing Kaiserin Augusta Victoria is a success; it should, however, be remembered that it is a vigorous grower, and must not be planted with Roses of the Mme. Falcot type. Borders of these free-growing Roses would be a delightful feature in any garden, allotting to each plant a space of about 9 square feet, so that its individuality may be well brought out. What a delightful object a single bush of Grüss an Teplitz may become if grown in this manner! Even the knife may be dispensed with in most cases. Another beauty is Billiard et Barré, whose rich golden buds are very precious, even if we are somewhat disappointed with its expanded blossom. Other charming Roses for such a purpose would be Mme. Hector Leuilliot, Mme. Charles Monnier, Mme. Jules Gravereaux, Gustave Regis, François Crousse, England's Glory, L'Idéal, Dr. Rouges, Alister Stella Gray, Longworth Rambler, Joseph Bernacchi, Souvenir de Prince Charles d'Arenberg, Virginie Demont-Breton, William Allen Richardson, Germaine Trochon, Lady Waterlow, &c.

MARIE SECOND (Tea-scented).—This is a new Rose of a charming shade of colour. It has the tints of G. Nabonnand and Mme. Abel Chatenay, with a rich reddish hue in the centre. The outer petals are tinged with pink; altogether the variety has a most distinct appearance. One thing I especially like is the free vigorous growth, quite after the style of M. Nabonnand's best introductions. If he only gave us the one Rose (G. Nabonnand), we should as rosarians be under a lasting debt of gratitude to him, and now we have its sport Peace, a Rose of autumnal beauty. The true Teas hold their own as our best autumnals, for where is there anything to touch Marie van Houtte in splendour at this season of the year. Then how glowing are General Schablikine, Albert Stopford and Comtesse Festetics Hamilton, the delicate-tinted Mme. Berkeley, Mme. Antoine Mari, Enchantress, or Sulphurea! How fine are the borders of half-standard Tea Roses just now! To have Tea Roses in perfection they must be grown upon half or three-quarter standards. There is such a lusty vigour about them when good healthy stocks with abundant roots are employed, and given a sheltered spot, good clayey loam to root into, and planted 3 feet apart each way, such plants develop very quickly into grand specimens. I think of all ways there are of growing W. A. Richardson this is the best.

P.

LEGAL POINTS.

ARTIFICIAL MANURE (*Inventor*).—A chemical compound may be good subject matter for letters patent.

PROPERTY IN MORTGAGE (*B. S., Sussex*).—Where mortgaged property is devised or bequeathed by will the devisee or legatee takes the property subject to the mortgage. He has no right in the absence of a special direction to require that the amount shall be discharged out of the remainder of the testator's property. If therefore a testator wishes that his devisee or legatee should take the mortgaged property free from the mortgage, he must by his will give explicit instructions that the amount of the

mortgage debt shall be paid out of the remainder of his estate. The devisee or legatee will not, however, become personally responsible to the mortgagee for the amount of the mortgage debt unless he enters into a new contract with the mortgagee. The testator's estate will also remain liable under his covenant to pay the amount secured, but the executors will be entitled to claim indemnity from the property devised or bequeathed.

TENDER (A. M. A., Chester).—If a debt is owing, in order to escape the costs of an action to recover the same the debtor must prove that he has tendered or offered the amount due to the creditor or his lawfully authorised agent. A tender cannot be made by post, nor is a cheque a lawful tender. Actual cash must be tendered without any condition, and the debtor cannot demand a receipt. If he wishes to be in a position to prove that he has paid the debt he must take a witness or witnesses with him when he tenders the money. Bank of England notes or gold are a lawful tender to any amount, silver up to 40s., and copper up to 1s.

GROUND GAME (Sportsman).—By virtue of the Ground Game Act, 1880, every occupier of land is entitled to kill and take ground game thereon, concurrently with any other person who may be entitled to kill and take ground game on the same land, provided that (1) the occupier shall kill and take ground game only by himself, or by persons duly authorised by him in writing. The occupier himself, and one other person authorised in writing by such occupier, shall be the only persons entitled under the Act to kill ground game with fire-arms. (2) No person shall be authorised by the occupier to kill or take ground game except members of his household resident on the land, persons in his ordinary service on such land, and any other person *bond fide* employed by him for reward in the destruction of ground game. (3) A person shall not be deemed to be an occupier of land for the purposes of the Act by reason of his having a right of common over such lands, or by reason of an occupation for the purpose of grazing or pasturage of sheep, cattle, or horses for not more than nine months. (4) In the case of moorlands and unenclosed lands (not being arable lands) the occupier and the persons authorised by him shall exercise the rights conferred by the Act only from December 11 to March 31, both inclusive; but this provision shall not apply to detached portions of moorlands or unenclosed lands adjoining arable lands less than twenty-five acres in extent. The occupier cannot part with his right to kill ground game as provided by the Act. He must not exercise his rights with fire-arms between the expiration of the first hour after sunset and the commencement of the last hour before sunrise, nor must he use spring traps, except in rabbit holes, nor employ poison. The occupier and the person authorised by him to kill ground game do not require a license to kill game, but a gun license is necessary.

POACHING LANDOWNER (Essex).—Your letter raises a number of points which we cannot very well answer in detail. The law is as follows: *Poaching*.—Trespassing in the daytime in pursuit of game, penalty not exceeding £2 and costs. In the case of a trespass by five or more persons, penalty for each person not exceeding £5 and costs. The justices have no jurisdiction when there is a *bond fide* dispute whether the defendant was entitled to enter upon the land. Trespassers who decline to give their real names and addresses are liable to a fine not exceeding £5, and may be apprehended by the owner of the game or the occupier of the land or their servants. Persons to the number of five or more trespassing in pursuit of game in the daytime, any of such persons being armed with a gun, and by violence preventing or endeavouring to prevent the owner of the game or his servant from approaching them for the purpose of requiring them to quit the

land or to give their names are liable to a penalty not exceeding £5. Game may be seized from trespassers. Suspected poachers may be searched by the police. If they are found with game or instruments for killing game they are liable to a fine not exceeding £5 and to forfeit any such instrument. It is a criminal offence to kill any hare or rabbit in any ground used for breeding or keeping hares or rabbits, whether enclosed or not. Penalty, if offence committed in the daytime, fine not exceeding £5. If at night, fine or imprisonment with or without hard labour. *Night poaching*.—It is a criminal offence to unlawfully take or destroy any game or rabbits by night on any land, open or enclosed, or on any public highway on the sides thereof, or to unlawfully enter any land, whether open or enclosed, with any gun or other instrument for the purpose of taking or destroying game. Penalty, first offence, imprisonment with hard labour not exceeding three months, and at the expiration to provide sureties, two in £5 and one in £10, not to offend again in one year. In default of finding



FLOWERING SHOOT OF GODETIA.

sureties, the offender is liable to further imprisonment with hard labour not exceeding six calendar months. In the case of a second offence the penalties are doubled. A third offence renders the offender liable to penal servitude. In the case of three or more armed poachers with guns, the offenders are liable to penal servitude, not exceeding fourteen nor less than three years, or imprisonment with hard labour not exceeding three years.

DISMISSAL OF GARDENER (C. E.).—We think you were entitled to a month's notice. A gardener who is engaged to keep the garden in order and clean the boots and knives cannot be called upon to pluck poultry and do housework. Your employer, having given you notice, cannot claim the return of the removal expenses. As your wife was engaged to take charge of the laundry, she is entitled to the wages or other remuneration which she would have earned had she been permitted to do so. She is also entitled to a month's notice. We have advised on the statements contained in your letter. If you have inaccurately stated the effect of your written agreement our advice may be of no value. Should your employer decline to pay you and your wife what you are properly entitled to, you should sue him in the local County Court.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR of THE GARDEN, 20, Tavistock Street, Covent Garden, W.C. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

Legal Points.—We are prepared to answer questions of law which have anything to do with the subject of gardening and forestry. The questions should be as clear and explicit as possible, so that there can be no doubt as to the point of the question. Answers will be found in a separate column headed "Legal Points."

GODETIA (M. M. P.).—These are most desirable plants for the flower garden in summer and early autumn. The flowers are bright and showy, and produce a brilliant display. You may have them in beds alone, at the edge of shrubberies, or in the mixed border. They may also be grown in pots for greenhouse decoration.

Lady Albemarle (crimson), Duchess of Albany (white), Princess of Wales (dark crimson), and *carminea aurea* are good.

MANURE FOR SEAKALE (D. K.).—By covering in the plants we take it you mean when the growths made this summer are ripened and the plants are covered for the forcing of the young or new growth. It may be out of place to use the term forcing, as you may only cover to blanch the new growth, and if this is the case manure of any kind, artificial or farmyard, is not required at that date. The latter is only used for warmth. At that date it does not feed, as the plant is in a dormant state, and the crown growths are built up the previous season, and only, as it were, hastened by the covering. The time to feed the plant is from May to August, when in full activity, and when the plants are forming crowns for the following season, then you may feed freely with artificial food, such as fish manure, guano, or nitrate. These foods given once a fortnight in small quantities in rainy weather, or well watered in, are most beneficial. Liquid farmyard manure is also a splendid fertiliser for these plants, as are occasional dressings of soot and salt in the growing season. The latter given two or three times during growth is of great assistance, and should not be overlooked, as the plant is a native of the coast. The plant does equally well covered with soil as with litter.

OWN-ROOT ROSES TO GROW UNDER GLASS (W. J. W.).—There are not a dozen Roses that one could say were absolutely free from mildew, but we think the following dozen should meet your requirements: Mme. Edmee Metz, Anna Olivier, Sulphurea, Mme. Hoste, Grace Darling, Maman Cochet, White Maman Cochet, Mme. Antoine Mari, Caroline Testout, Duchess of Albany, Lady Roberts, and Liberty. We must say an eastern aspect is not at all favourable to the Roses. Neither do we hold out any hope that these own-root plants will be less blighted with mildew if you give them the same treatment. There is an error somewhere in your cultivation that causes this mildew; it may arise through imperfect watering or manuring, certainly it is not owing to the fact that the plants are grafted. But you can be relieved of all trouble from mildew if you use the sulphur vaporiser every twelve or fourteen days. Dryness at the root is often the cause of mildew. Afford the bed a thorough good soaking before you try and move the plants.

CLIMBING ROSES WITH BLOOMS OF GOOD QUALITY (A. W. B.).—Climbing Caroline Testout and climbing Kaiserin Augusta Victoria would be two excellent sorts for this sheltered spot, but instead of climbing Captain Christy try climbing Niphotos or climbing Mme. de Watteville. As a fourth variety we suggest Mme. Jules Gravereaux. It yields most perfect blooms, quite up to exhibition standard, and it is a vigorous grower.

RUNNER BEANS (J. G. P.).—The pods of the Runner Beans sent are very badly eaten by slugs and snails, probably by large and small kinds, as the small Beans at the top of the haulm must have been eaten by the smaller kinds. You will soon be able to ascertain if it is slugs, as a look-out late at night will reveal the enemy. We have seen similar damage caused by mice. For slugs we would advise you to dress each side of the plants quite close to the haulm with a strong mixture of fresh lime and soot, and in our own case we have used gas lime. This is a barrier they cannot get over, but the gas lime must not touch the plants in any way. Next autumn we should advise you to dress your land thoroughly with the above as early as possible; let it lie on the soil a week or two before digging in. If this is done it will clear the pests. We are far too conservative in the garden in the use of lime.

MIGNONETTE FAILING (R. Wardman).—The failure is due to a fungus which is parasitic, and by fixing itself to the stem or collar of the plant at or near the ground level permeates and destroys the plant's tissues. In certain instances the roots may be found to be dead also, in which case the parasite may have been introduced through the seeds, the mycelium remaining inactive until the weather and atmospheric conditions were favourable for its development. When the fungus is introduced as latent mycelium with the seeds there is no remedy, but if it is present in the soil or the manure your remedy is to dress the ground with gaslime when free from crops. A fair dressing of the lime would be rather less than a bushel to each rod of ground, strewing the lime uniformly, and permitting it to lay for a month on the surface before forking it in. A second forking of the ground a month later will also assist in the free distribution of the lime. If you experience difficulty in obtaining the gaslime, you might employ quicklime fresh from the kiln. Lay the lumps on the soil on a fairly dry day, damp it slightly to cause it to slake, and spread while in the powder state, subsequently forking it in.

A PLANTING OF LILIES (Light Dragoon).—The best and hardiest Lilies to grow in the open in a chalky soil, with plenty of good pasture loam and sand added, mostly to flower in July, August, and September, are: *Candidum*, *pyrenaicum*, *pomponium*, *Hansonii*, **excelsum* or *testaceum*, **croceum*, *monadelphum* and *colchicum*, *chalcodonicum*, **Batemanii*, **speciosum* in variety, *Martagon* in all its forms, **tigrinum* in variety, **umbellatum* in variety, and **longiflorum* in variety, **Henryi* and **Brownii* for the best positions and soil. Sorts with an asterisk prefixed require to be planted 6 inches deep, as these produce more roots from a covered portion of the stem than from the base of the bulb, and they derive considerable nourishment from the surface soil, hence can be fed with an occasional mulch of very old manure. These, again, are best for tub culture, and receptacles will vary in dimensions in accordance with the space they have to fill. Half a petroleum barrel will hold a dozen *L. speciosum*, *tigrinum*, or *excelsum*, and will fill a space 2 yards square with flowers. Lard pails, butter tubs, &c., of smaller size will hold three to six bulbs each, and are useful for smaller spaces, but garden pots of similar sizes are preferable to use. Petroleum barrels sawn in half and burned out to consume the oil are best, as they last underground for five to six years in your soil. Disused ale barrels are equally serviceable. Do not forget to drain well or the bulbs will decay wholesale. Lilies most suitable for

rockeries are *concolor*, *coridion*, *bulbiferum*, *rubellum*, and *elegans* in variety. Select the coolest sites the rockery contains and plant deeply in every case. Yes; you can grow Lilies well under a Rose pergola, and the wonder is that every grower of Roses does not do so. Try *candidum*, *croceum*, *excelsum*, *chalcodonicum*, *Brownii*, *longiflorum*, *auratum*, and *platyphyllum*, using one kind in each space between the posts rather than several. Plant in breadths always, and note that all are stem-rooting save *candidum*. We suggest you use *candidum* to divide any two plantings of coloured Lilies in the same border, and where shade is available use *auratum* and *platyphyllum*. Plant *L. candidum* at once, the others as early as possible, in order that they may become well rooted before winter sets in. If the border is not ready for *candidum* now, plant in boxes and turn out with as little disturbance of root as is possible later on.

NECTARINES (J. W.).—The Nectarines sent have at some recent date been scalded by the hot sun when the fruits were wet (have you syringed?) and the sun was shining; or have you at any time recently used an insecticide? This used strong on a tender skin with hot sunshine following would cause the injury. You give us no particulars; for instance, an attack of mildew would cause the skin to go in this way. Have you any mildew on the trees? It looks very much as if you have had a few weeks ago—not now; the mischief is not during the last month. Another evil is that of allowing a lot of rank growth to cover the fruits, then to remove all at once and expose the tender fruits to the fierce sun. Are your trees on a very hot wall? Cement plaster often causes the fruit to blister. The punctures are caused by woodlice. Snails also do much mischief, then the flies and wasps complete the work. We would advise syringing the walls with a weak insecticide. Fill the crevices at the base on the ground with fresh soot and lime, and round the stems of the trees. Repeat this as the lime or soot weakens. This done, woodlice and slugs will soon retreat.]

RASPBERRIES (M. A. V.).—In your question about Raspberries you give no idea as to the nature of your soil. So much depends upon this in the way of a full crop and healthy plants. On a thin sandy soil resting on gravel Raspberries would soon wear out in spite of the best attention in the shape of manure. On the other hand, in a loamy soil the plants should last much longer than in a poor soil. There can be no question, however, that you would do well to make a new bed and select an open position with a good holding soil if possible. Double dig, manure heavily, and get new and strong stock from a good source. It is useless planting the weak canes, as it would court failure. Plant as early in November as possible, and in the early spring cut the newly-planted canes to within 6 inches of the soil. Then allow two or three strong growths from the base. These will be your fruiting canes for the following year. You should well thin the old canes now, only retaining the best of the young growths—you may have left too many previously—and place a good mulch, 4 inches to 6 inches of decayed manure over the roots. We do not advise artificial manure for these plants now, but a dressing in May or June, and this well watered in freely several times after the dressing would be beneficial.

PALM LEAVES (Constant Reader).—When once the fronds of Palms have turned brown nothing can restore them to their original colour; in fact, the only remedy when this is restricted to the tips is to trim off the dead portion with a pair of scissors. If this is done in as natural a manner as possible, it will not be much noticed, but should the damage extend too far a cropped-up appearance will be the result. The mature fronds that have turned yellow can rarely be restored to their original tint; in fact, the only thing that can be done is to depend upon the new ones, which in your case seem to be in a very

satisfactory state. As the young fronds of yours produced this summer have done so well, it seems somewhat out of place to suggest any alteration in the treatment of the plants, but less guano, we think, would be beneficial, though after all it depends upon the strength used. Even if weak a dose once a week would, we consider, be sufficient, but as so much depends upon the size of the pot, condition of the roots, and other particulars, no hard and fast line can be drawn. At all events, far less stimulants are required during the winter than when the plants are growing freely, and the same applies to the syringing. If any of the forms of *Phoenix* are attacked by scale they quickly develop yellow spots, which remain after the cause has been removed, and which are impossible to eradicate. When Palms have once fallen into a sickly state they respond so slowly to improved treatment that, judging by your letter, we think you ought to be well satisfied with the results.

HARDY FLOWERS (Jessie Kennedy).—We fear you will hardly obtain what you desire, by reason of the limitations of the border, and, unfortunately, you say nothing about the soil or the aspect of the border. But, as you desire the most possible, you cannot do better than adopt a dual system of planting bulbous things in conjunction with hardy border flowers. Here are some plants likely to be of service: *Christmas Roses*, double white *Arabis*, *Campanula glomerata speciosa*, *Aster sub-ceruleus*, *Heuchera sanguinea*, *Coreopsis grandiflora*, *Campanula Moerheimii*, *Trollius* in variety, *Helenium pumilum magnificum*, white and red perennial *Pea* (to be trained fan shape at the back, one plant near each end of border), *Aster Amellus*, *A. acris*, *A. levigatus*, *Pyrethrum Hamlet* and *P. Mrs. Bateman Brown* (singles), *P. Carl Vogt* and *P. Captain Nares* (double-flowered), *Hemerocallis flava*, *H. Thunbergii*, *Geum coccineum plenum*, *G. Heldreichii superbum*, *Rudbeckia Newmannii*, *Polemonium Richardsonii*, and *Primula cashmiriana*. In addition you could plant Carnations such as the *Old Clove*, hybrid *Pentstemons*, and early-flowering *Chrysanthemums* to afford a good late display. By grouping the following bulbous plants near or between the other plants you would get spring and late summer flowers in the same position: *Muscari conicum*, *Fritillaria imperialis*, and *F. Meleagris* in variety. *Narcissus Emperor*, *Sir Watkin*, *Empress*, *ornatus*, *Barri conspicuus*, and *Golden Spur* are excellent, and a dozen bulbs of each would make two good clumps. Then by planting *Alstroemerias* in any dry position, *Spanish Irises* in variety in tufts of a dozen bulbs each (these are very cheap), a similar lot of *Montbretias*, together with *Gladiolus* and *Galtonia candicans*, you would have many good things in a small space. You could also plant such Lilies as *tigrinum*, *croceum*, *umbellatum*, *speciosum*, and *album*, and by planting three bulbs of each quite near to such things as *Rudbeckia*, *Trollius*, *Helenium*, and the like you would have good flowers for quite a long period. You will of necessity have to dig and manure the ground thoroughly. Plant the border in autumn or in spring, the former preferred.

EXHIBITING CACTUS DAHLIAS (Country Mouse). Commonly in England at large shows Cactus Dahlias are shown in clusters of six or three blooms of one variety, fixed firmly in wire frames, so as to face the flowers all one way. They are also shown singly in boxes as *Roses* are, and also in sixes or threes in vases. When shown in frames or vases the stems should be of fairly good length, and with the vase flowers it is usual to run some soft wire round them, to stiffen them and cause the flowers to stand up boldly. If you have to show six, nine, or twelve blooms of diverse varieties, get a box just large enough for the number of flowers stated and 4 inches deep inside, painted green. Place in it one tiny bottle, vase, or tube for each flower, fill in with nice green moss, covering the bottles, then insert the stem (cut short) of each flower into the bottles.

PILLAR ROSES FOR LATE FLOWERING (M. S.).—Una blooms in summer only. Dawn and Tea Rambler flower rather later than most of the summer Roses, but they are not perpetual flowering. For yellows, bronze and yellowish shades you will find the following good: Alistair Stella Gray, Mme. Jules Gravereaux, Billiard et Barré, Belle Lyonnaise, Souvenir de Prince Charles d'Arenberg, Gustave Regis, and Mme. Hector Leuilliot. Good pinks for late flowering are climbing Mrs. W. J. Grant, climbing Captain Christy, Lady Waterlow, Pink Rover, England's Glory, and Dorothy Perkins.

EDELWEISS (R. W. A.).—We presume you have not treated the plants aright, or the seedlings should now be of good size. The Edelweiss is not difficult to grow, and succeeds quite well in sandy loam to which old mortar rubbish finely broken up has been freely added. A liberal drainage is essential. If the plants are not in some such mixture as this you had better repot them at once, using quite a third part of the old mortar, but no manure of any kind. Employ pots of 5-inch diameter, with a fourth part drainage, and pot quite firmly. Much of the present soil should be removed. When repotted refrain from watering for some hours. Take care not to bury the heart of the plant, but make the soil firm about the plant.

PALMS, &c. (R. W. A.).—We cannot say definitely what the Palms are from the sketches you submit. No. 1 may be *Seaforthia elegans*. No. 2 is probably *Encephalartos* species. No. 3 is not a Palm, and may be a *Dracæna*. Neither the one nor the other is in the least degree hardy, and all of them will be killed outright if left in the open air during the winter. If you desire to retain the plants, and have no room for them under glass, some neighbouring nurseryman would probably give them shelter for a fee, or you might attempt to keep them by placing them in the corners of your sitting-room, entrance-hall, or the like. In such case very little water will be required for at least three months; a good watering every fourteen days will suffice. The plants would be best where there is no gas.

GRAFTING MISTLETOE (R. W. A.).—Mistletoe is not grafted in the ordinary acceptance of the term, and may be introduced by means of its berries or fruits to such trees as the Apple, Thorn, Poplar, Lime, Maple, Oak, among others. In a large number of instances the birds are the chief operators, carrying the berries from branch to branch, and by reason of the viscid nature of the flesh of the berries adhering to the bird's beak a course of cleaning the latter on the twigs of the trees is responsible for the seed adhering to the branch. In the course of time, usually a few months, or it may be a year, growth is apparent, very small at first, and if left alone a bunch may be formed in time. If you desire to grow Mistletoe you must do much the same thing, i.e., rub the berries on the under side of a branch or twig, preferably where a forked branch exists to retain it in position. February and March are both good for the work, and no cutting of the bark must be indulged in whatever. You had better protect the berries from the birds by covering with a bit of wire gauze, and you must not expect any leaf growth much under two years.

CLIMBING ROSE (H. M. P.).—Fortune's Yellow would not be a suitable Rose for such an aspect or soil. It is so addicted to shedding its foliage, and the wet soil would only aggravate this fault. As you possibly would prefer a yellow Rose, we should recommend *Réve d'Or* or *Celine Forestier*, and a good blush white would be *Mme. Alfred Carrière*. In the preparation of the soil you could remedy the wet condition by artificial drainage, either by pipes or about a foot in depth of broken bricks. In preparing for the Rose take out the existing soil to a depth of 3 feet and a similar width. Fork up the subsoil, then put in the bricks and fill up the hole with some good

soil, consisting of the top spit from a meadow if procurable. Skim off the grass and put this in the bottom of the hole, then add other soil, mixing with it one part out of three of good decayed manure, and add about half a peck of bone-meal. Supposing it is not convenient to procure such soil, then return the soil removed, mixing with it some gritty material, such as road scrapings from gravel, not granite, roads, and any burnt earth that may be available. The manure and bone-meal would be mixed with the clay soil also, or you could add part clay and part new soil, as if the new soil is a sandy loam it would not be quite heavy enough for Rose growing. The hole should be filled about 8 inches higher than the level of the ground, then in November, when the soil has settled down, you could plant the Rose.

LAWN IN BAD CONDITION (C. E. B.).—The most satisfactory plan would be to lift the turf and level the ground carefully, afterwards relaying the best of the turf and procuring some fresh material to make up for the bad places. If, however, this is impracticable, the bumpy places may be levelled by taking up a portion of the turf and removing a little of the soil underneath, then relay the turf, and beat it down firmly. The holes might be filled up in the same manner. For the bare places the ground should be stirred up slightly before sowing the seeds, which should be well raked in after spreading them evenly over the surface. The ground should be well rolled, and for a dressing one of the best things is well-rotted stable manure spread over the turf during the winter months. The majority of this manure, if well broken up, is soon washed into the ground, while the rougher remains may be readily raked up in the spring before the lawn is wanted for use. There are also many chemical manures sold for this purpose which are cleaner for use than stable manure, and which can be obtained from any leading nurseryman. Coarse weeds like Dandelions, Plantains, and Daisies require to be dug out to make a perfect lawn.

ROSE GLOIRE DE DIJON (F. W. B.).—The long growth that appears so unsightly may be bent round or turned over by the aid of a piece of green string or tarred twine. Do not cut back the shoot, but if you tie as recommended next season there should be some nice blossoms from the dormant eyes. Many a large-headed standard Rose which makes a lot of growth, but flowers sparsely, should, instead of being pruned, have the shoots bent down umbrella fashion, then in time blooms would appear from most of the eyes that are upon the shoot. If these shoots are too numerous, reduce them in number, but do not curtail their length very much. As you cannot procure clay, we should advise you to obtain some of the most clayey soil procurable in your neighbourhood for the small pond, and line the vessel with it, keeping it in position by the aid of some galvanised wire netting. Many individuals grow Water Lilies simply in large pans of water, and beautiful objects they are. An edging of rough bricks (called burrs) from a brickyard would add a rustic appearance to the pond.

NEPENTHES (Awbrook).—(1) The operation of rebasketing is carried out exactly as repotting, that is to say, the plant is turned out of its basket and put into a larger one. There is rarely any great difficulty in turning a *Nepenthes* out of its basket if a little of the rougher soil is taken away with a pointed stick. Should any roots be attached to the basket a slice of wood may be cut off and thus free the roots. In rebasketing two or three large crocks should be placed in the bottom of the new basket, and the space filled up with rough peat, sphagnum, and sand. (2) If well established in a 5-inch basket one 2 inches wider and 1 inch deeper would be suitable. (3) One reason why baskets are usually preferred to pots is that the pitchers are seen to the best advantage when the plants are hanging up, for which purpose baskets are well suited. Still, the plants may be well grown in pots, provided ample drainage is ensured. (4) If the plants get

too tall they may be cut down and the tops put in as cuttings. (5) *Nepenthes* need a stove temperature, a humid atmosphere, and a liberal amount of water at all seasons, but, of course, more is required in the winter than in the summer. If you think of rebasketing or potting your plants we should not advise you to do so before the middle of February.

YELLOW ROSE FOR PORCH (H. E. G.).—In your beautiful county a variety from the dwarf section of Tea Roses, such as *Marie van Houtte* or *Mme. Charles*, should soon cover the one side of your porch. There is a variety that is looked upon as a semi-climber, *Mme. Charles Monnier*, that would be a rather stronger grower. It is a lovely orange shade, especially towards autumn, and has large flowers. *Mme. Pierre Cochet* or *Mme. Eugene Verdier* would also be suitable, but if the colour is deep enough we should select *Marie van Houtte*. A very beautiful buff-coloured Rose, bearing large exhibition-sized blooms, is *Mme. Jules Gravereaux*. Although this is a strong grower, it flowers so freely right down to the ground that one need not hesitate to plant it in such a position as you propose. *Dorothy Perkins* would give a refreshing effect from its foliage, but would be much too vigorous for the space available, unless you would care for it to trail over the roof of the porch.

CREEPERS FOR FENCE (R. D. Watson).—The following are all good for the purpose of covering unsightly objects quickly, and in the main require but little attention: *Escallonia macrantha*, flowers pink; *Ceanothus*, especially *azureus*, *dentatus*, or *rigidus*; *Vitis heterophylla*, **Lonicera aurea reticulata*, *Ampelopsis Veitchii*, *A. muralis*, *Euonymus radicans variegata*, **Garrya elliptica*, *Hedera* (Ivy) *helix palmata*, *H. h. dentata*, *Smilax aspera variegata*, *S. sagittifolia variegata*, **Passiflora cærulea*, and its white variety **Constance Elliott*. You may plant any of the above-mentioned at once or in the early spring, obtaining strong-established examples, established in pots for the purpose, from a nurseryman who makes a speciality of climbing plants and shrubs. If desired, strong climbing Roses and Clematises could also be planted, the latter, like those marked by an asterisk, would require attention in the matter of training. If you have no desire for much variety the two first-named groups are both quick and dense growing.

LEAVES DAMAGED (Keid).—The leaves sent are very badly attacked by yellow thrips, which are so small and do so much damage before the leaves are developed that their presence is very frequently not suspected. While the leaves are enfolded together in the bud state they make innumerable punctures in the outer skin, from which the juices of the plant are abstracted, and as the leaves grow the punctures enlarge and present the appearance that yours do. A hot, dry summer is far more favourable to their development than a wet one; indeed, a dry atmosphere, combined with a starved condition at the roots, may be relied upon to lead to the appearance of these pests. Under glass the XL All Vaporiser is successful if two or three operations are carried out, but the season is too far advanced in either case for much to be done now. The *Dahlia* in particular is a liberal feeder, and if it be planted in good soil, freely watered when necessary, and after a hot day syringed overhead, the thrips will not trouble you, but when starved they soon make their appearance. Besides thrips there are evident signs of injury by earwigs, which are readily trapped by placing suitable harbour for them among the Dahlias. Small flower-pots with a little dry moss or hay in them, to be gone over every morning, and the insects that have congregated therein during the night killed, are very effectual, and Broad Bean stems cut up into short lengths are equally good. Though you will not save your Dahlias this season by trapping the earwigs now, yet by

destroying them in the autumn they are prevented from increasing another year.

GROWING CABBAGES FOR WINTER (M. A. B.). Cabbage is so easily grown that you should have no difficulty whatever in getting as good a supply as required; indeed, with a little timely attention to cultural details, good Cabbage may be had all the year round. Even now you could get good small-hearted winter and spring Cabbage if you obtained strong plants of the Rosette Colewort and planted these on an open quarter in well-manured land. Give plenty of moisture at the start. Many growers fail simply because they plant and then give no water at this time of year, but this should be the first consideration. There are distinct winter Cabbages—large sorts mostly of the Drumhead type—that will stand any amount of severe weather. These are the St. John's Day, St. Martin, and Christmas Drumhead, but, to get these as good as possible, they should be sown in May or June and planted out six weeks later. Grown thus you would have splendid heads from November to March. There is yet another way—less reliable, certainly—but that is to plant now Cabbage sown early in July. Choose such varieties as Early April and Ellam's Early Dwarf. Given ample attention they turn in very early, but this is a spring supply. Now your best plan would be to rely upon the quicker-growing Rosette Colewort, and to sow next year the winter sorts at the time named.

ABOUT ROSES (Rev. W. J. Chapman).—You ask for names of a few Roses that would be as much admired by your friends as Mme. Abel Chatenay and G. Nabonnand, and we have pleasure in naming the following: Peace, Mme. Antoine Mari, Paul Lede, Earl of Warwick, Grand Duc de Luxembourg, Sulphurea, Pharisier, Konigin Carola, Prince de Bulgarie, Joseph Hill, Le Progrès, Meta, Mme. Berkeley, Prefet Monteul, Souvenir du President Carnot, Comtesse Cayla, Mme. C. P. Strassheim. We should hesitate to recommend William Notting, as at present with us it has been anything but satisfactory. You will find in these pages from time to time a perfectly uncoloured review of the best novelties as they appear. We were the first to praise Mme. Abel Chatenay, as you may see by referring to THE GARDEN for June 6, 1896. We agree that information is wanted as to influence of soil and climate upon various classes of the Rose, but in the report of Dr. Dyer upon samples of Rose soil, taken from widely different districts, he said that he "was obliged to come to the conclusion that any common bond that may exist between the soils must be sought less in chemical resemblance, or in abundance in any particular chemical ingredient, than in good mechanical and physical condition of the soil and good drainage." We think you will not be far wrong if you adhere to the popular Hybrid Teas and Hybrid Perpetuals with some of the true Teas that are of good constitution, such as Marie van Houtte, Anna Olivier, Lady Roberts, &c. Try and visit the best Rose garden in your locality and see which are doing best.

NAMES OF FRUIT.—G. H. Branksome.—1, Golden Noble; 2, Bess Pool; 3, Lord Suffield.—A. B.—1, Striped Beau-fino; 2, Lord Raglan.—S. P., Kingston.—The roots of the Pear tree have got into unsuitable soil, and, if the tree is not too old, we should advise lifting the roots this autumn and placing them in better soil nearer the surface.

NAMES OF PLANTS.—A.—1, Delphinium brunoianum; 2, Aconitum rostratum; 3, Aconitum rostratum album; 4, Coronilla varia.—W. Wooderson.—1, Sedum spectabile; 2, Sedum Telephium.—A. James.—Ceanothus azureus.—J. P.—Many of the Ferns sent are slight variations of one species, which it would be impossible to name. 1, Nephrodium spinulosum; 2, Nephrodium Filix-mas; 3, Aspidium angulare; 4, Aspidium Filix-femina; 5, Polypodium vulgare; 6, Aspidium Filix-femina var. rhatum; 7, Nephrodium spinulosum; 8, Aspidium angulare var. proliferum; 9, Polypodium vulgare var. cambricum; 10 and 11, Aspidium Filix-femina; 12, Aspidium angulare; 13, Nephrodium Filix-mas var.; 14, Nephrodium Filix-mas; 15, Nephrodium spinulosum; 16, Aspidium Filix-femina; 17, Nephrodium spinulosum; 18, Nephrodium Filix-mas; 19, Aspidium aculeatum; 20, Aspidium angulare var. proliferum; 21 and 22, Nephrodium Filix-mas; 23, Aspidium aculeatum; 24, 25, 26, 27, and 28,

Aspidium Filix-femina; 29, Aspidium angulare; 30, Aspidium viride; 31, Aspidium angulare; 32, Aspidium aculeatum; 33, Aspidium Adiantum-nigrum; 34, Lomaria spicata; 35, Lomaria spicata var.—C. Mackenzie.—The Rose is Mme. Pierre Cochet.

SHORT REPLIES.—F. B., Ilford.—You cannot possibly plant a better climbing Rose than Gloire de Dijon (cream), but if a red is preferred we should recommend Grüss an Tepitz, or if a white Mme. Alfred Carrière. Four good dwarf Roses are Mrs. John Laing, Ulrich Brunner, Caroline Testout, and Frau Karl Druschki, or if a cream-coloured one is desired plant Marie van Houtte instead of the first named. Four good Cactus Dahlias are Mrs. J. J. Crowe, Mrs. C. H. Jones, Countess of Lonsdale, and J. H. Jackson. The Yucca filamentosa are quite hardy, but being so small we should advise you to keep them in a cold pit, or anywhere in the light where frost cannot reach them, then prick out into the garden next April.—H. George.—Fuchsias were grown in this country some time previous to 1834, as F. globosa, F. gracilis, and F. macrostemma were introduced in 1823, the tiny-flowered F. microphylla three or four years later, and the distinct F. fulgens in 1830. As with many other florists' flowers, the varieties of Fuchsia gradually dropped out of cultivation, and names well known at one time are difficult to trace a decade later. Fortunately we were able to refer to a volume of the *Gardeners' Magazine* for 1839, in which the following Fuchsias were spoken of as having been frequently shown, and consequently popular: F. fulgens, F. globosa, and F. gracilis, all of which could be easily obtained at the present day. In addition were mentioned the names of F. fulgida superba, F. grandiflora, F. majestica, F. multiflora erecta, and F. stylacea conspicua, none of which can we now trace. Though not mentioned in the publication we have just named, the hardy F. Riccartoni was a popular plant in the thirties, and would very probably be in the greenhouse at that time. This can be readily obtained from nurseries now.—W. Fraser.—Rubus fruticosus will succeed well under cultivation in the north-west of Scotland. Rubus cæsius (Dewberry) is equally hardy and would do well, but the first-named sort is to be preferred because of its more handsome and juicy fruits. These are now ripe, and make a very delicious jelly. Seedlings give quick returns, but they can also easily be raised from seed by simply sowing the seeds where they will not be choked by weeds, and can be protected from birds.—J. S.—Of the plants concerning which you enquire *Crassula imbricata*, also known as *Crassula lycopodioides*, is a low-growing, branching plant whose small leaves are arranged in four rows. The flowers are small and purplish. *Mesembryanthemum Cooperi* forms a much-branched decumbent plant, with solitary flowers, bright purple in colour, and about 2 inches in diameter.—Subscriber.—Everyone familiar with Potato flowers knows that so far the colours have always been limited to white, mauve, and shades of deeper hue. The discovery by Messrs. Sutton and Sons in a big block of Up-to-Date of a plant carrying orange-coloured flowers last year was such a surprise that the plant was carefully marked, the tubers secured and planted this year. The result has justified the care taken, as every plant has produced yellow flowers again. To what circumstance is to be ascribed this remarkable sport no one can say, but it is a most singular one without a doubt, and it may be, have important effects on the Potato of the future. The tubers of the variety seem to differ somewhat from those of Up-to-Date. To be consistent with the flowers they should have yellow flesh. Whether that is so we have not learned. It might be imagined that some new species had been introduced into our Potato stocks, but efforts to obtain crosses with other species seem so far to have been an undoubted failure.—Joseph Meade.—*Helianthus multiflorus* in its various forms includes many fine varieties of great garden value. The best-known forms are the single, both dwarf and tall forms (maximus), and the double varieties. Of these there are two distinct forms, the one with all ligulate florets constituting the flower, while the other is composed partly of disc and partly of ligulate florets. The double Sunflower sent is interesting, but does not appear to possess sufficient merit to warrant a place in the garden instead of any of the others. The single one sent seems to be but a poor form of H. multiflorus. With such a variable plant as this it is possible to select a great number of varieties, many of which should be consigned to the rubbish heap, saving only the best.—D. Hamilton.—The red flower is apparently an *Alonsoa*, and the white one a *Spiraea*, but it is quite impossible to name with confidence such scraps as those sent. Shall be pleased to name characteristic specimens with both leaves and flowers, in which case please number the specimens sent.

Thacker, C. Matthews, C. Hines, and others. Norwich does not boast of a large competitive show for Dahlias, but Hobbies, Limited, Dereham, with their reputation for this flower, endeavoured to infuse much interest in the Cactus section at this meeting by charming collections of the newest of the certificated varieties staged in fine style. Mr. George Davison, whom we may now term of Montbretia fame, brought some of these flowers, and in addition to the list on the first page of THE GARDEN for September 16, had one good thing as yet unnamed. He showed *Tropeolum speciosum* finely also. Mr. F. Williams, gardener to Louis Tillet, Esq., M.P., Old Catton, brought up blooms of the curious *Hæmanthus coccineus*. Another interesting exhibit was the bloom of *Eucomis* or *Pine Apple* flower brought up by Mr. W. Shoesmith, gardener to F. W. Harmer, Esq., Cringleford. Besides these there were the usual large competitive classes for flowers, fruits, and vegetables, which were well contested with meritorious productions.]

NATIONAL CHRYSANTHEMUM SOCIETY.

ON Monday, the 18th inst., the executive committee of this society held a meeting at Carr's Restaurant, Strand, when Mr. Thomas Bevan occupied the chair. Mr. Gerald Dean, the secretary *pro tem*, read the minutes of the previous meeting, and the chairman then read a letter from Mrs. Dean expressing the thanks of herself and family for the vote of condolence passed at the previous meeting of the committee. A letter was also read from the *Evening News* in relation to the Children's "Mum" League Exhibition, to be held next month. It appears that this journal early in the year organised a children's Chrysanthemum show and distributed gratis about 7,000 plants in 6-inch pots. The show is to be held in the Horticultural Hall, and prizes will be awarded to the exhibitors, who will be grouped into two sections—those residing within a radius of three miles from Charing Cross, and those who live beyond that distance. By way of encouragement it was resolved that the National Chrysanthemum Society should offer two small silver and two bronze medals for competition. Vacancies on the floral and executive committees were filled, and a rough financial statement was submitted, which was considered satisfactory in its details. Several suggestions were made as to the conference on early flowering varieties to be held on the 4th prox. at the Crystal Palace. It was resolved that certain growers should be invited to send plants illustrative of the decorative value of early varieties. Mr. Harrison warmly approved of the resolution. As a large grower of this section he considered that great advance had been made in the earlier, but that there was still room for further improvement. Mr. Shawyer in this country and Mr. Aug. Nonin in France were specially mentioned as having done good work in raising new seedlings. The Guildford Chrysanthemum Society was admitted in affiliation, and several new members and Fellows were elected.

BATH GARDENERS' DEBATING SOCIETY.

THERE was a crowded attendance at the first annual meeting of this society, which was held at the Foresters Hall on Monday, the 11th inst. Mr. T. Parrott, chairman of the society, presided. The chairman said when the society was formed eleven months ago they little thought it would have made such progress—they were now 220 strong. Mr. W. Butt (secretary) read the annual report, which reviewed the work of the first year, and a great many pleasant meetings, some most practical and instructive papers had been read, whilst two very successful outings were held. The balance-sheet was presented by Mr. O. G. McLaren, the honorary treasurer. The cash in hand and at the bank amounts to £12 6s. 10d., besides some outstanding subscriptions. The adoption of the balance-sheet was agreed to, and the auditors, Mr. W. Veal and Mr. T. Allen, were heartily thanked for their services. The honorary officers (including the president, Mr. C. T. Foxcroft) were reappointed, Mr. T. Parrott was re-elected with acclamation, and the vice-chairman (Mr. A. J. Freeman), treasurer (Mr. O. G. McLaren), and secretary (Mr. W. Butt) were again chosen, and the whole list of vice-presidents and fifteen honorary and ordinary members of the society were elected, and three names added. The usual resolutions of thanks were passed. This society recently paid a visit to Bowood, the seat of the Marquis of Lansdowne. Mr. Brown, the head gardener, conducted the visitors over the pleasure grounds and gardens. The Italian gardens in front of the house were visited. Mr. Brown was heartily thanked.

SCOTTISH HORTICULTURAL SOCIETIES.

MARKINGHOLM HORTICULTURAL SOCIETY.—The annual meeting of the Markingholm Cottage Gardening Society was held in the Town Hall, Markingholm, on the evening of the 16th inst. The annual statement of the accounts of the society was submitted by the treasurer, showing an income of £175 13s. 14d., and an expenditure of £193 8s. 4d., thus making a loss of £17 15s. 3d. on the transactions of the year. This rather unsatisfactory condition was caused by the stormy weather on the day of the show, which had the effect of greatly reducing the takings at the gate.

DRUMLITHIE HORTUS CLUB.—The annual meeting of the members of the Drumlithie Hortus Club was held in the Public Hall on the evening of the 16th inst., the Rev. E. M. Boyd, president, in the chair. The financial statement submitted was of a satisfactory character, there being a balance of about £12 in favour of the club after payment of the usual prize money and other outlays.

SOCIETIES.

EAST ANGLIAN HORTICULTURAL CLUB.

THIS flourishing club had a large gathering of members at its September meeting, held at the Shirehall Hotel, Norwich. Mr. W. J. Jarman, from Hobbies, Limited, Dereham, gave a most interesting paper, entitled "In a Rose Garden." As a concluding item he said he hoped the day was not far distant when the formality of the old-timed system of staging single blooms in formal stands and rows would soon give way to the broader lines adopted in America of showing Roses in vases with their foliage. Mr. T. B. Field (Ashwellthorpe Hall Gardens), an enthusiastic rosarian and a lover of old-fashioned garden Roses, opened the discussion, which was taken up with much animation by Messrs. E. Peake, J. C. Abel, G.

ROYAL HORTICULTURAL SOCIETY.

ON Tuesday last, the 26th inst., the Horticultural Hall was filled with groups of plants, cut flowers, and fruit. The occasion was the ordinary fortnightly meeting of the Royal Horticultural Society and the autumn show of the National Rose Society. Orchids, greenhouse plants, hardy plants, and fruit were all well shown. A full report of the Rose show appears below.

FRUIT AND VEGETABLE COMMITTEE.

Present: Mr. George Bunyard (chairman), Messrs. J. Cheal, A. Dean, H. Parr, E. Beckett, G. Kelf, H. Markham, J. Lyne, F. Q. Lane, J. Willard, G. Norman, J. McIndoe, Owen Thomas, H. Somers Rivers, A. H. Pearson, G. Reynolds, and S. Mortimer.

Messrs. Thomas Rivers and Son, Sawbridgeworth, exhibited a group of Vines in pots, cut bunches of Grapes, Apples, and Plums. The Vines, trained on flat trellises, were carrying splendid crops of fruit, the varieties Gros Maroc, Alicante, Golden Queen, and Gros Colmar being shown. The bunches of Buckland Sweetwater and Alicante were very good. Wonderfully fine were the fruits of Apple Peasegood's Nonsuch, Cox's Orange Pippin, and Ribston Pippin, Plum Golden Transparent Gage and Late Orange, all showing perfect colour and finish. A Marguerite Marillat Pear weighed 22½oz. Silver-gilt Knightian medal.

The Duke of Fife, East Sheen Lodge (gardener, Mr. Mountford), showed a collection of Apples and Pears. Pears Doyenné Boussoch, Brockworth Park, and Fondante de Cuernne were excellent, so were Apples Emperor Alexander, American Mother, Ribston Pippin, Peasegood's Nonsuch, Worcester Pearmain, and others. Silver-gilt Banksian medal.

Mr. G. Norman, gardener to the Marquess of Salisbury, Hatfield, was awarded a silver Knightian medal for four very fine bunches of Black Hamburg Grapes.

Messrs. James Veitch and Sons, Limited, Chelsea, exhibited fruits and fruiting branches of Crab Apple Brilliant, an attractive rosy red fruit obtained from the Red Siberian Crab Apple King of the Pippins.

Mrs. P. H. Miffler, Moyleen, Mallon, showed dishes of Walnuts and shoots bearing fruits.

Fruits of *Pyrus baccata* Beauty of Montreal were shown by Mr. E. Beckett, Aldenham House Gardens, Elstree. The fruits are conical, rich shining red on the sunny side.

A dozen very fine fruits of Pear Fondante de Cuernne, a large Pear, heavily mottled with brown upon a pale yellow ground, were shown by Mr. Mountford, East Sheen.

A Peach of very unattractive appearance, with dull carmine-coloured skin (evidently grown outdoors), named Forest Farm, was shown by Mr. Whibley, gardener to Lady Fitzroy, Forest Farm, Balcombe.

Some very good bunches of the new Grape Prince of Wales were shown by Mr. Ellis, gardener to H. L. Bischoffshausen, Esq., Warren House, Stanmore. The committee awarded a silver Knightian medal to these Grapes.

Messrs. H. Cannell and Sons, Swanley, exhibited a collection of Raspberries, both dishes of fruit and fruiting branches. Golden Queen, Perpetual de Billiard, Belle de Fontenay, and Noir d'Automne were among those shown.

A splendid collection of vegetables, the produce of seed sent out by Mr. R. Sydenham, was shown by Mr. Hobday, Romford, Essex. All were clean, well-grown samples, and most attractively set up. Particularly good were Tomatoes Golden Perfection, Holmes' Supreme, and Perfection, Drumhead Savoy, The Lion Leek, Standard Bearer Celery, and Ailsa Craig Onion. Silver-gilt Knightian medal.

ORCHID COMMITTEE.

Present: Messrs. Harry J. Veitch, James O'Brien, de B. Crawshaw, Jeremiah Colman, W. A. Binley, Norman C. Cookson, H. A. Tracy, W. Boxall, W. H. Young, F. W. Moore, J. Charlesworth, James Douglas, Richard G. Thwaites, Walter Cobb, H. Little, Francis Wellesley, and F. J. Thorne.

Messrs. Sander and Sons, St. Albans, exhibited some handsome hybrid Cattleyas and Lælio-Cattleyas. Silver Banksian medal.

Messrs. Charlesworth and Co., Heaton, Bradford, exhibited a very fine group of hybrid Orchids, chiefly Cattleyas, Lælio-Cattleyas, and Brasso-Cattleyas. The centre of the exhibit consisted of a beautiful collection of Cattleya Iris (C. bicolor × C. aurea), and showing considerable variation of colour. Cattleya germania (C. schofieldiana × C. hardyana) was represented by some splendid plants, and other good things were L. C. gottoliana, Brasso-Cattleya gigas-digbyana, L. C. Violetta, and L. C. Callistoglossa, all represented by small groups of splendidly-flowered plants. There were single plants of Cattleya Mrs. Pitt, Brasso-Cattleya purpurato-digbyana White Lady, L. C. Adolphus, Cattleya F. W. Wigan, and many other beautiful hybrids. Several Odontoglossums, Cypripediums, and other Orchids were also shown. Gold medal.

Messrs. Hugh Low and Co., Bush Hill Park, Enfield, showed a small group of Orchids, including Odontoglossum grande, Cattleya dowiana, and several Cypripediums, e.g., C. calosum, C. Ajax, and C. pollettianum. Cattleya Lodgesii alba, too, was shown.

Messrs. Stanley and Co., Southgate, N., set up a group of Orchids that contained good plants of Cattleya labiata, C. dowiana aurea, C. Harrisonia, C. bicolor, Odontoglossum grande, and other plants. Silver Banksian medal.

NEW ORCHIDS.

Cattleya Iris Her Majesty.—A very fine variety, with wavy light apricot-coloured sepals and petals, and large crimson-purple frilled lip. From Messrs. Charlesworth and Co., Heaton, Bradford. First-class certificate.

Cattleya crispo-hardyana.—A hybrid between Cattleya crispa and C. hardyana, with broad drooping petals of a soft lilac blue shade; the lip, whose margins recurve, is deep purple below the throat, the side lobes being lighter.

There is a suffusion of yellow in the throat. From Major G. L. Holford, C.I.E., Westonbirt (Orchid grower, Mr. Alexander). Award of merit.

Miltonia Reginaldi Gatton Park var.—A form with large flowers, the broad sepals and petals light yellow, suffused with pale purple in some flowers, the lip purple. Shown by J. Colman, Esq., Gatton Park, Reigate (gardener, Mr. B. und). Award of merit.

Cattleya Maroni Westfield var.—A striking flower, the sepals and petals, with undulating margins, being bronzy yellow; the colour of the lip is perhaps best described as bluish crimson, a yellow ground colour shows through here and there. Shown by F. Wellesley, Esq., Westfield, Woking. Award of merit.

Cypripedium purpuratum Tracy's variety.—The dorsal sepal of this Cypripedium is marked symmetrically with crimson lines upon a white ground. The petals and pouch are dark crimson. From H. A. Tracy, Esq., Twickenham. Award of merit.

Lælio-Cattleya luminosa Rosita.—A very handsome flower, the broad petals flushed with purple upon a light yellow ground. The lip is very richly coloured; it is purple, the throat being marked with yellow lines. From Messrs. Charlesworth and Co., Heaton, Bradford. Award of merit.

A botanical certificate was awarded to *Stenoglottis fibriata*, shown by Mrs. Brightwen, The Grove, Stanmore.

FLORAL COMMITTEE.

Present: Mr. William Marshall (chairman), and Messrs. C. T. Drury, George Nicholson, H. B. May, James Walker, J. F. McLeod, G. Reuthe, R. W. Wallace, Charles Jefferies, H. J. Cutbush, Charles E. Pearson, J. T. Bennett-Poë, W. P. Thomson, George Paul, W. J. James, J. Jennings, C. J. Salter, R. C. Notcutt, J. W. Barr, R. Hooper Pearson, J. Green, W. Howe, W. Cutbertson, Charles Dixon, E. H. Jenkins, and George Gordon.

Hardy plants were well and abundantly shown on this occasion. Near the entrance Messrs. G. Bunyard and Co. set up a group containing early-flowering Chrysanthemums, Rudbeckia Autumn Glory, Kniphofias, Aster Amellus (varieties), and a set of the varieties of Japanese Anemones.

Very charming were the Roses from Waltham Cross, and, apart from the display in the hall elsewhere, such a group as this alone fully justifies the holding of an autumn exhibition of these ever-popular flowers. Masses of the more beautiful, fragrant, and pleasing kinds were plentiful. To show the richness and variety in these things at the present time the fact that eighty distinct kinds were staged is ample proof. Some important kinds are Warrior (a much-improved Papa Gontier), Earl of Warwick (flesh and pink, exquisite in form), La France, Maréchal Niel, Frau Karl Druschki, White Coralina, Peace (soft cream), Princesse de Sagan (carmine-crimson), Mme. A. de Chateaufort, Prince de Bulgarie, Liberty, and others. Really a most remarkable exhibit.

Messrs. Barr and Sons, Covent Garden, contributed Michaelmas Daisies, Kniphofias, Japanese Anemones, Rudbeckias, early Chrysanthemums, and other hardy autumn flowers.

Hobbies, Limited, Dereham, had a superb bank of Cactus Dahlias, margined with Roses, and with the latter in the background. The Roses and Dahlias were in all respects excellent.

Messrs. Carter Page and Co., London Wall, also had Cactus Dahlias, and we admired here the boldness and general character of the arrangement equally with the excellent flowers. The arrangement was very bold.

Messrs. R. H. Bath, Wisbech, showed Pompon Dahlias, early Chrysanthemums, and Cactus Dahlias, each in a representative gathering. Of Chrysanthemums we take Champs d'Or, Horace Martin (yellow), Rol des Blancs, Orange Pet, Esperance (white), and Jason (yellow).

A pretty group of Pompon Dahlias came from Mr. Charles Turner, Slough. Thora (rosy bluish) is an ideal flower, and Clarence (maroon), Matador (scarlet and maroon), with Falcon (yellow and orange) are decidedly pleasing flowers.

Messrs. J. Cheal and Sons, Crawley, staged a capital lot of Cactus and single Dahlias. In the former Mrs. E. Mawley, Fairy, and Pearl, with J. H. Jackson were all good. The singles, too, were especially good, both in form and colour; the self-coloured forms in particular were pleasing.

Messrs. J. Veitch and Sons, Ltd., had a fine group of Leonotis Leonurus, the hairy tubular flowers disposed in whorls on Sage-like stems. It is a most effective plant, the orange flame colour showing to great advantage. A rich mass of Nerine Fothergillii major was very good. Cotoneaster applanata, with axillary clusters of red fruits, and Crab Brilliant (Siberian Crab × Apple King of Pippins) were most effective.

Messrs. Wm. Cutbush and Sons, Highgate, staged an excellent lot of Cactus Dahlias, the flowers, as also the grouping and general arrangement, appealing at once to the visitor. Rainbow (rosy mauve), Fairy (white), Ajax (orange), and Sirius (orange flamed scarlet), are a good set. Dainty, straw base and pink tips, is a lovely flower.

Messrs. Backhouse and Son, York, had a most attractive exhibit in Colchicums. C. speciosum, C. s. atro rubens, a very dark variety, and C. s. album, with its pure creamy white Tulip-like blossoms of four or five to a single corm. This is a unique plant, and one of the most meritorious of autumn flowers. C. autumnale album plenum was also well shown.

A very pretty lot of Cactus Dahlias were exhibited by Mr. Mortimer, Rowledge, Farnham, Surrey. International (scarlet orange), Rising Sun (yellow and buff), and Unique (fawn, rose, and yellow) are all charming and distinct.

Mr. H. Shoemith, Woking, also had Cactus Dahlias in variety and a few blooms of the Pompon Cactus varieties.

Several varieties of Michaelmas Daisies came from Mr. G. H. Sage, Richmond. A white form of A. N.-B. named Snowden appeared to be a good kind.

Dracma notabilis, with mottled foliage, in the form of D. latifolia, and a forked inflorescence of creamy tubular flowers, and *Glorigosa grandiflora*, with pale yellow flowers, came from Messrs. William Bull and Sons, Chelsea.

Messrs. Carter Page and Co., London Wall, had a dozen or eighteen vases of Pompon Dahlias, good in flower and finely disposed.

Aster (Michaelmas Daisy) St. Egwin is a showy rosy pink variety of the A. Novi-Belgii type. The height is 3 feet, and the head of blossom very large.

Stock Beauty of Nice was exhibited by Mr. W. H. Adams, Hockley, Essex. It is a flesh-coloured variety.

Mr. L. R. Russell, Richmond, again showed a charming series of Clematises in flower, making a very pleasing arrangement.

Messrs. Wallace and Co., Colchester, showed autumn-flowering bulbous plants, as Cyclamen, Sternbergia lutea major, the pure white Colchicum speciosum album, Kniphofia modesta, with white flowers, and a fine mass of Crocus speciosus, with large purple flowers. Gladiolus princeps was in capital form.

Cactus Dahlias and Pompon Dahlias were largely shown by Messrs. T. S. Ware, Limited, Feltham. A very representative gathering of these flowers was staged, and we noted most of the leading kinds of both sections.

Mr. James Stredwick, St. Leonards-on-Sea, set up a superb lot of Cactus Dahlias, that in form and colour are of the highest merit. Wm. Marshall (pale orange-primrose), Mrs. Gaskill, Pearl, and Thomas Parkin (fiery orange) were noted among this fine set.

Mr. West, Brentwood, also showed Cactus Dahlias in variety.

Messrs. William Wells and Co., Merstham, had a good bank of early Chrysanthemums, which included Market (white), The Champion (yellow), Jason (yellow), Ernest Baltet (red), Dolly, Prince (white), Rol des Blancs, and many more.

A charming lot of hardy flowers from Mr. M. Prichard, Christchurch, Hants, included single and double Pyrethrums, Kniphofias, Lobelias, and a large array of the varieties of Aster Amellus. Montbretias, Tiger Lilies, Belladonna Lilies, and Japanese Anemones were all freely shown. Silver Banksian medal.

Messrs. Geo. Jackman and Son, Woking, also contributed hardy plants in variety. Michaelmas Daisies, Physalis Franchetii, early Chrysanthemums, Pentstemons, Japan Anemones, Clematis paniculata, and other good things. Silver Flora medal.

A fine strain of single and double Begonia flowers was exhibited by Messrs. Peed and Son, West Norwood; and early Chrysanthemums were in capital form from Mr. Eric Such, Maidenhead.

A big vase of Helianthus sparsifolius, the flowers of a rich golden hue, came from Messrs. Cannell and Sons, Swanley. It is a splendid garden plant.

A fine exhibit of Roses, with Clematis grata, came from Messrs. W. and J. Brown, Peterborough. Cactus Pelargoniums were also from this firm.

NEW PLANTS.

Rosa sericea aux grandes épines.—A very remarkable plant of erect growth, in which the bases of the spines extend from joint to joint. The dark red colour of the spines is nearly transparent, and we can well imagine the effect of the setting sun as seen through a fine bush of this plant. This remarkable plant is from Mandeschuria, and was shown by Mr. George Paul for Mr. Maurice de Villemorin, les Barres. First-class certificate.

Chrysanthemum La Vestale, an early-flowering variety, with bluish pink flowers of medium size, on plants 3 feet high. From Messrs. R. H. Bath, Limited, Wisbech. Award of merit.

Cyrtanthus sanguineus glaucophyllus.—An important addition to the Cyrtanthi. The horizontally disposed flower on its 9-inch stem is as large as a Vallota, yet more Amaryllis-like in form. The colour is intense scarlet, shaded crimson. From Mr. J. O'Brien, Harrow-on-the-Hill. Award of merit.

Seventeen new Dahlias were given awards of merit by a joint committee of the Royal Horticultural Society and the National Dahlia Society. They will be described next week.

NATIONAL ROSE SOCIETY'S AUTUMN SHOW.

It was generally admitted that in some of the classes at least the autumn show of the National Rose Society was finer than its summer show. Garden Roses were very fine, so were the Hybrid Perpetuals and the Hybrid Teas, but the Teas seemed to have suffered somewhat from the weather. The exhibits occupied more than half the Horticultural Hall, and made a most delightful display. The gold medal was awarded to two new seedling Roses, one a single and the other a Hybrid Tea, and a card of commendation was given to a Hybrid Tea.

NURSERYMEN.

For thirty-six blooms, distinct, Messrs. James Cocker and Sons, Aberdeen, were first with a collection of very fine blooms of good form, size, and colour throughout. V. Verdier, U. Brunner, H. Vernet, F. K. Druschki, Mrs. E. Mawley, Comtesse de Ludre, and Prince Arthur were among the best. The second prize was won by Messrs. Adam and Craigmile, Rubislaw, Aberdeen, Ben Cant, Comte Raimbaud, and General Jacqueminot were fine blooms. Mr. Hugh Dickson, Belfast, was third. J. B. Clark and Hugh Dickson were remarkable flowers. There were eleven entries in this class.

The first prize for thirty-six bunches of Roses, distinct varieties, was won by Messrs. Benjamin R. Cant and Sons, Old Rose Gardens, Colchester, with a beautiful lot. Especially good were L'Idéale, Beryl, Princesse de Sagan,

G. Nabonnand, Rainbow, and S. de Catherine Guillot. Second, Messrs. J. Barrow, Belgrave, Leicester; third, Messrs. J. Jefferies and Son, Cirencester.

For eighteen Teas, distinct, Messrs. D. and W. Croll, Dundee, were first. Enchantress, Lady Roberts, Maréchal Niel, Boadicea, and White Maman Cochet were excellent blooms. Messrs. Adam and Craigmile, Aberdeen, were second; third, Mr. George Prince, Longworth, Berks.

The first prize for twelve distinct Teas, seven blooms of each, in vases, was won by Messrs. B. R. Cant and Sons, Colchester, with good blooms. Mr. George Prince, Longworth, Berks, was second, and Messrs. J. Jefferies and Son, Cirencester, third. Several exhibitors in this class were disqualified because they did not conform to the schedule, which *inter alia* stipulates that only Roses mentioned in the National Rose Society's catalogue of exhibition Roses are to be included. One of the disqualified exhibits contained a garden Rose. The finest Roses were among those disqualified.

Twelve blooms of any Rose in vase: First, Messrs. J. Jefferies and Son, Cirencester, with fine Frau K. Druschki; second, Mr. Hugh Dickson, Belfast, with Hugh Dickson; third, Messrs. S. McGreedy and Son, Portadown, with Frau K. Druschki. There were many other entries.

Thirty-six distinct varieties of garden Roses: First, Mr. John Mattock, New Headington, Oxford; second, Messrs. Frank Cant and Co., Colchester; third, Messrs. Paul and Son, Cheshunt. The exhibits in this class were excellent, and made a delightful show.

Twelve distinct varieties of Polyantha Roses: First, Messrs. B. R. Cant and Sons, Old Rose Gardens, Colchester, with a pretty display of Gloire des Polyantha, Mme. N. Levassieur, Cecile Brunner, Aschenbroedel, and others; second, Messrs. Frank Cant and Co., Braiswick Rose Gardens, Colchester.

Mr. Charles Turner, Slough, won the first prize for twelve distinct varieties of garden Roses; second, Messrs. J. Jefferies and Son, Cirencester.

The first prize for a representative group of cut Roses, in a space not exceeding 100 square feet, was won by Mr. George Prince, Longworth, Berks, with a magnificent display of flowers. Messrs. George Jackman and Son, Woking, were second; third, Messrs. Alex. Dickson and Sons, Limited, Newtownards.

Mr. Charles Turner, Slough, was first for a group of Roses on the floor, Messrs. Paul and Son, Cheshunt, being second.

For a representative group of cut Roses, not exceeding 60 square feet, Mr. John Mattock, New Headington, Oxford, was first with some very good bunches.

There was keen competition for a bowl of China Roses, Mr. John Mattock, New Headington, Oxford, being first with a lovely lot; second, Messrs. J. Cocker and Sons, Aberdeen; third, Mr. Charles Turner, Slough.

AMATEURS.

The first prize for eighteen blooms, distinct, was won by Mr. F. W. Flight, Cornstiles, Twyford, Hants, with excellent flowers; second, Mr. Conway Jones, Hucclecote, Gloucester; third, the Rev. J. H. Pemberton, Havering-atte-Bower.

Twelve blooms, distinct (growers of less than 2,000 plants): First, Mr. E. J. Holland, Silverdale, Sutton, with a good exhibit; second, the Rev. F. Page Roberts, Strathfieldsaye Rectory; third, Mrs. Fortescue, Dromore.

Nine blooms, distinct (growers of less than 1,000 plants): First, Mr. Alfred Evans, Marston, Oxon, with good flowers; second, Mr. G. Moules, Hitchin; third, Mr. Adamson.

Mr. M. C. Turner, Tatton, Edgware, was first for six blooms, distinct (growers of less than 500 plants); second, Dr. C. Lamplough, Alverstoke; third, Mr. W. E. Hammond, Burgess Hill.

Twelve distinct varieties of garden Roses, three trusses of each: First, Mr. A. Tate, Downside, Leatherhead, with a lovely lot; second, the Rev. J. H. Pemberton, Havering-atte-Bower.

Twelve Teas, distinct: First, Mr. Conway Jones, Gloucester, with a beautiful lot; second, Mr. F. W. Flight, Twyford, Hants.

Nine Teas, distinct (growers of less than 500 Teas): First, Mr. Adamson; second, Mr. A. Evans, Marston, Oxon; third, Mr. W. Leggett, Colchester.

For six blooms of Teas, distinct (growers of less than 200 Teas): First, Dr. C. Lamplough, Alverstoke; second, Mr. Guttridge, Ifield Lodge, Crawley; third, Mr. W. R. Hammond, Burgess Hill.

For six distinct varieties of exhibition Roses in vases, five blooms of each, Mr. G. A. Hammond was first with a beautiful lot of flowers; second, the Rev. J. H. Pemberton; third, Mr. C. J. Holland, Sutton.

For four Teas, distinct, five blooms of each, Mr. W. Leggett, Colchester, was first; second, Mr. E. J. Holland, Sutton.

For a bowl of exhibition Roses (ladies only) Miss Langton, Hendon, was first with a charming exhibit; second, Mrs. Harwood, Colchester.

For a bowl of garden Roses (ladies only) the first prize was won by Mrs. C. Williamson, Ethelbert Road, Canterbury; second, Miss Langton; third, Mrs. Harwood.

A basket of cut Roses (ladies only), first, Miss Langton; second, Miss Easterbrook, Fawkham; third, Mrs. Williamson.

Six distinct varieties of garden Roses in bunches: First, Lady Sutton, Benham Park, Newbury; second, Mr. A. C. Turner, Tatton, Edgware; third, Miss E. M. Wightman, Bengoe, Herts.

The Mustard Flower Glasses were shown by Messrs. James Green and Nephew, 107, Queen Victoria Street, E.C.

SILVER MEDAL ROSES.—NURSERYMEN.

Hybrid Perpetual.—Mrs. J. Laing (Messrs. Adam and Craigmile, Aberdeen).

Hybrid Tea.—Helen Guillot (Hugh Dickson, Belfast).
Tea.—Maréchal Niel (D. and W. Croll, Dundee).

AMATEURS.

Hybrid Perpetual.—Charles Lefebvre (Mr. George Moules, Hitchin).

Hybrid Tea.—La France (Mr. Conway Jones, Gloucester).
Tea.—Souvenir d'Elise (Mr. Adamson).

NEW ROSES.

A gold medal was awarded to each of the following novelties:

Irish Elegance.—A very beautiful single Rose; the large flowers are soft salmon pink, and the buds and half-opened flowers are richly tinted with red and apricot (A. Dickson, Newtownards).

Countess of Gosford.—A handsome seedling Hybrid Tea of good form, the petals elegantly waved. The colour is deep salmon pink (S. McGreedy and Son, Portadown).

A card of commendation was awarded to

Dorothy Page Roberts.—A beautiful Hybrid Tea, a large flower with reflexing petals; colour, rich rose-pink, which fades to a lighter shade as the flowers age (A. Dickson, Newtownards).

Marriage.—Mr. George Laing Paul, eldest son of Mr. George Paul, Cheshunt, was married on the 19th inst. at the church of St. Michaels, Chiswick, to Barbara Helen, second daughter of the late Edwin Richard Pearce of Birmingham. The employees in the nurseries at Cheshunt presented Mr. Paul with a combined barometer, thermometer, and hall clock in carved oak.

New Dahlias.—At the exhibition of the London Dahlia Union, held at Earl's Court on the 19th and 20th inst., no less than 115 varieties were submitted for awards, and of these sixteen gained first-class certificates. They were the following: From Mr. J. T. West, Brentwood, Nelson (previously described); Mrs. G. Stevenson, a very fine yellow (Cactus); Nellie Hemsley, rich deep crimson with white tips to florets (decorative Cactus); and Kitty Barrett (Pompon). From Mr. H. Shoesmith, Woking, H. Shoesmith (Cactus); Little Polly and Little Fred (two pretty Pompon Cactus varieties). From Messrs. Burrell and Co., Cambridge, Allright (Cactus). From Hobbies, Limited, Dereham, The Pilot. From Messrs. Stredwick and Son, St. Leonards, W. Marshall, a variety closely resembling J. B. Riding; Mrs. Macmillan (Cactus); Star (Cactus); and Tom Tit (Pompon Cactus). From Mr. S. Mortimer, Blush Gem (a very fine show variety). From Mr. M. V. Seale, Sevenoaks, Cynthia (a pretty single). From Mr. C. Turner, Slough, Thora (a good Pompon). An interesting feature of this show was a collection of large, semi-double varieties from Holland. These were designated Peony-flowered Dahlias, and were put up by Hobbies, Limited (J. Green), who, we understand, will distribute them in this country.

Applying weed killer.—In a recent issue you advised that weed killer should be applied during dry weather. Our experience is quite the contrary. The best effects are when the walks are moist, and you know that during the months of May, June, and July the walks are mostly dust-dry, and even twenty-four hours rain is not sufficient to damp below the surface. Of course, a dry day on which to apply it is necessary, but we contend that during the autumn, winter, and early spring the paths are in the best possible condition, and give good results from the application. — BOUNDARY CHEMICAL COMPANY, LIMITED.

Obituary—Mrs. C. T. Druery.—We are very sorry to hear of the death of Mrs. Druery, which occurred last week from peritonitis supervening on jaundice. All who know Mr. Druery in his home life will feel the deepest sympathy with him in this sad blow. The funeral took place on Friday last at Acton Cemetery.

TRADE NOTE.

THE BARNHAM NURSERIES, LIMITED.

MESSRS. S. S. MARSHALL, LIMITED, beg to announce that the name of the company has been altered to "The Barnham Nurseries, Limited." The management and directorate will remain as before, and the business will be conducted on the same lines as in the past. All cheques and postal orders should be made payable and all goods charged to "The Barnham Nurseries, Limited."

* * * The Yearly Subscription to THE GARDEN is: Inland, 6s. 6d.; Foreign, 8s. 9d.

GARDENING APPOINTMENTS.

MR. JOHN WALKER has been appointed head gardener to W. Middleton Campbell, Esq., Fen Place, Turner's Hill, Sussex.

MR. JAMES SMITH, who has been foreman for the past two and a-half years in the gardens at Loughcrew, Oldcastle, County Meath, has accepted the appointment as head gardener to W. Darley, Esq., Violet Hill, Bray, County Wicklow.

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THE GARDEN.

No. 1768.—Vol. LXVIII

OCTOBER 7, 1905.

NEW MONTBRETIAS.

MR. GUMBLETON has, sent to us from time to time flowers of the newer Montbretias which have bloomed in his interesting garden in Queenstown. This beautiful race was described recently by Mr. Davison, who raised Prometheus and several other striking hybrids; but the hybrids sent by Mr. Gumbleton include several which, as far as we are aware, have not been mentioned before. The hybrids are as follows:

America.—A very free flower of a wonderful warm orange-red, in which there is a suspicion of an apricot shading. The individual flower is not large, but there is a sunny look about it which is most effective. A very bright flower.

Rayon d'Or.—A very dainty and charming flower, not large, but distinct and pretty. The buds are quite a warm reddish orange colour, but as the flower opens this gives way to almost a self apricot-yellow. The red remains in part, but there is less of it; the petals are very firm, and in the centre of the flower there is a ring of orange-red.

Congo.—A very dark orange-red hybrid, bud and open flower being of this very rich shading. It reminds one of America.

Anneau d'Or.—This is a superb flower, over 2 inches across, the segments broad, and of wonderful colouring; an intense orange-yellow, with a velvety purple base, and the centre of a lighter yellow. The buds are dark red. The backs of the petals show very little of the purplish shade, but, like the upper surface, are orange-red.

Tragédie.—A very good name. It is an intensely dark hybrid, probably the darkest in cultivation. The flower is deep orange, the segments broad, and the lower half is a warm marone-purple. The buds are quite a lurid colour, almost black, but dull orange towards the apex. It is a very handsome flower, and would be, associated with certain plants, very effective.

California.—A delightful flower, warm, but bright in colouring. The broad florets make up an almost circular bloom $1\frac{1}{2}$ inches wide. Its tinge of colour deepens towards the centre of the flower, where there is a suffusion of yellow, and within the throat an irregular purple ring. It is amongst the brightest of all.

Le Pactole.—A beautifully-coloured flower; $1\frac{1}{2}$ inches across. Its charm is in the pure satiny, almost apricot, shade and the suspicion of crimson-purple at the inner base of the three lower segments. It is a firm flower, very free. The buds are orange-red; this shade is seen on the back of the expanded segments.

Lothario.—This is wonderfully bright, a brilliant apricot-yellow and orange-red. There are more distinct forms, but it is certainly a very cheerful garden flower. It is free blooming, and the buds have an orange-red tinge.

Incandescent.—This is a very distinct and pretty Montbretia, with a widely-expanded flower and broad segments. It is lit up with colour, and seems corruscated like the Nerine, scintillating with golden orange colouring, touched with orange-red towards the apex of the broad, firm segments. At the base there are a number of dark, almost black, spots. The back of the segments is flushed with orange red; the buds are dark red.

PREPARATION FOR FRUIT PLANTING.

A LARGE measure of after success in the culture of hardy fruits is dependent upon the care and knowledge devoted to the preparation of the undertaking. So many apparently small details have a bearing upon the results, that only after long and varied experience is it possible to grasp them all and give each its due weight. In our climate there is always much of an adverse character which is quite out of the grower's control, and this renders it still more important to take the fullest advantage of the influences we can modify or adapt to our purpose.

The selection of soils and sites presents the first difficulty, and it is one that proves a great obstacle to many. We have known men searching for ideal sites during a long period, who concluded their work by devoting their capital to some other business. The fact is, such perfect spots that are to give the investor the maximum of security for his money scarcely exist. The good points have to be carefully considered in contrast with the defects, and the balance will decide whether the risk is too great or not. There must be always some risk to face in farming and gardening, and the utmost which the best knowledge and judgment can do is to reduce this within reasonable limits.

The essentials will partly depend upon the objects of the cultivator and the extent of the proposed plantation. Defects which might easily be reduced or removed entirely on a small plot of land might prove so serious on a large scale that the success of the enterprise would be jeopardised by reason of the great initial expense required. Thus small plots of very heavy cold soil have been rendered most profitable fruit and vegetable gardens by means of well-applied hand labour and suitable manure supplied in large quantities. To carry such work out on an extensive plantation in the same thorough manner

would necessitate an outlay that few would be prepared to face, and in a commercial undertaking the interest to be paid upon the capital sunk would be a heavy charge upon the most bountiful produce the land could yield.

Heavy fertile soils efficiently drained yield the most lasting results, but against that the cost of cultivation must be set. Light soils demand less expenditure in labour, but need supplies of manure, which in some cases may be quite as costly. Medium soils which contain the essential constituents for satisfactory tree growth and fruit production therefore offer the best advantages, but there is something to counterbalance them, for it usually happens that rent or price is high in proportion. It is a matter of calculation in such cases to determine how far the difference in price or rent will compensate for the extra expenditure in labour on the one side or the reduction on the other. The great danger to avoid is taking land of an extreme character either in the direction of lightness or the reverse, and not allowing for the outlay that will be requisite to bring it into proper condition. This leads to many disasters, for in trying to cut down expenses to an undue level the prospects of profitable returns may be long postponed, or ultimate success rendered almost impossible.

Another matter which affects all fruit-growing, whether on a large or a small scale, to a most serious extent is the condition of the land as regards weeds, especially those of a perennial nature and with creeping roots. We have known land set out for fruit planting because it was obtained cheaply, but, though suitable in other respects, the cleansing needed before anything should have been attempted in the way of fruit-planting would have increased the first cost by nearly 50 per cent. Yet in some instances (happily rare) planting has been done before the land was even partly cleared of Twitch, with results that can be easily imagined by anyone who has seen trees and bushes struggling through a mass of that grass.

Unless really foul land can be given several seasons of thorough cleaning, or a course of preparatory cropping, it will be a source of trouble, expense, and loss for many years. Few inexperienced persons realise what a long period of neglect upon some soils means in after labour. The seeds with which the land is charged come up like a sown crop every time the soil is turned in the operations of cultivating, and a wet time in the growing season, when the work of eradication is stopped for a period, results in a bed of weeds that is simply alarming, and conveys the impression of neglect to all who are unacquainted with the facts.

The aspect, elevation, and shelter of the selected site all demand consideration, as they have a bearing upon the results, which is

sometimes of most critical importance. The benefits derived from an aspect which ensures the fullest exposure to the sun must be obvious in this climate; the maturation of wood, buds, and fruits is mainly dependent upon this being provided. If there is a slight fall of the land in the direction of the sun it is also beneficial, and assists the natural surface drainage. Less sunny and colder aspects can be utilised for prolonging supplies of any special crop, and consequently upon a large estate a grower for profit as well as for home supplies would take advantage of all aspects that afford the slightest prospect of good returns if the soil and other matters are favourable.

The elevation involves several rather more complicated considerations, and it is very difficult to give a definite pronouncement upon it. In a general way there is no doubt that low positions should be avoided, especially where they are enclosed. In the course of a life's experience many instances occur where spring frosts cause serious injury in the lower part of sloping land, when the crops on the higher portion have escaped. Yet there are thousands of acres of market garden and fruit land in the valleys of rivers where fair average crops are obtained. We have grown hardy fruits on land from within a few feet of river level and sea level, up to an elevation of 400 feet or 500 feet, and have proved that the mere elevation alone is not sufficient to enable us to form a judgment. A free escape of the air descending from the higher parts is the most essential point, and the steepness of the river banks, the speed with which the river flows, and the distance from the outfall, may exercise some influence on the prevention of serious injury. Still, we should hesitate about planting extensively in any low land unless assurance could be had from previous experience that the risks were not unduly great.

Shelter is important in regard to wind effect, both at flowering and fruiting time, the south-west and the east being the two most important points where protection is needed. Such shelter plantations should, however, be at sufficient distance to prevent overshadowing or root interference, and sometimes it can be better accomplished by means of hedges in the plantation itself. For the latter purpose various fruit-bearing trees have been tried, such as Plums, Apples, and Pears, and there is much to be said in favour of rendering the shelter productive. Against the use of such trees in dense hedges there is, however, this to be said, namely, they serve as nest plants for insect and fungus pests which prey upon those forming the main plantation, and are, therefore, dangerous store-houses. One up-to-date fruit-grower on a large scale has adopted this view, and has formed all his shelter belts of conifers or other trees quite distinct from ordinary fruit trees.

In our next article the methods of soil preparation and improvement will be considered.

THE EDITOR'S TABLE.

SINGLE DAHLIAS.

Messrs. J. Cheal and Son, Lowfield Nurseries, Crawley, have sent blooms of single Dahlias from their unrivalled collection of these plants. The single Dahlia is one of the most attractive of all the Dahlia classes, and some of the newer varieties, while possessing all the elegance of the older ones, are greatly improved in colour. Some of

the most distinct of these good garden flowers are: Mikado, a handsome flower, red in the centre, and yellow outside; Vesuvius, bright red; Columbine, yellow, suffused with blush, deepening to rose at the edges; Darkness, dark ruby, the bright yellow stamens showing well; Mrs. J. G. Randall, striped with red on a bluish rose ground; Princess of Wales, rose, with orange yellow centre; Stromboli (new), rich velvety crimson, tipped with white; William Parrott, scarlet, with white-tipped edges; Snowdrop, a very beautiful white, with a pale yellow ring around the central bunch of orange-coloured stamens; and Hilda, striped with guinea gold on blush pink.

NICOTIANA SANDERAE.

Dr. Cecil Osburne, Lindville, Cork, sends flowers of this interesting Nicotiana, in which the crimson colour predominates. The shoots sent show its great freedom of flowering.

SELF CARNATION J. HARVEY.

Miss C. Harvey sends from The Links Cottage, Banff, N.B., flowers of a very brilliant self scarlet Carnation named J. Harvey. It has a long calyx, and a group of it must be very bright. Our correspondent writes: "The Carnation was raised from seed supplied by Mr. James Douglas, Edenside Gardens, Great Bookham."

A GOOD CUCUMBER.

From Woolland, Blandford, Dorset, Mr. J. Harris sends an excellent Cucumber with the following note: "Those who are restricted in growing Cucumbers in pots under glass should try Sutton's A1, as I find it the best for pot culture after many years experience. I send you a fruit grown in an 18-inch pot."

HYDRANGEA PANICULATA.

I am sending a flowering shoot of *Hydrangea paniculata grandiflora* for your table. The plants are growing with *Azalea mollis* and *Tritoma*. The bed makes a splendid show in spring and autumn. It contains about one hundred *Hydrangeas*, seventy *Azaleas*, and twenty *Tritomas*. The *Hydrangeas* are pruned back to about two eyes at the end of March; then the bed is forked lightly over, and mulched during the summer with short grass from the lawns.—E. HAYTON, *The Gardens, Caer Beris, Builth, Breconshire.*

[The panicles of *Hydrangea* sent were very fine indeed.—Ed.]

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

October 10.—Royal Horticultural Society's Exhibition of British-grown Fruit (three days). Conference of fruit-growers on all three days. Annual dinner of the United Horticultural Benefit Society. Horticultural Club, 6 p.m. Lantern lecture on "American Gardening," by Mr. R. J. G. Read.

October 24.—Royal Horticultural Society's Exhibition of Home-grown Vegetables. Lecture by Mr. W. P. Wright on "Potatoes."

October 31.—Southampton Horticultural Show (two days).

November 7.—Royal Horticultural Society's Meeting. Lecture by Dr. J. A. Voelcker, M.A., on "Chemistry in Relation to Horticulture"; Birmingham Chrysanthemum Show (three days).

Idesia polycarpa.—This distinct and handsome tree is not a particularly well-known one in most gardens, and even where it is grown, it is rarely that one sees it bearing fruit. The reason is the same as the one that explains why people have so frequently to complain that *Hippophae* does not fruit—and that is, the plants are unisexual. It is necessary to have both male and female plants growing within a few yards

of each other to obtain fruits. When bearing a full crop, as it is doing this year, it makes a striking object during the autumn. The fruit is a small berry about the size of a Pea, first changing from green to a dull reddish colour, and then to black. It is borne in pendent clusters like small bunches of Grapes. The *Idesia* is, however, a handsome foliage tree besides. Its leaves, somewhat Catalpa-like in shape and size, but of stiffer texture, are 6 inches to 10 inches long, heart-shaped, blue-white beneath, and distantly toothed on the margins. It was first found in Japan by the Kew collector, Richard Oldham, in 1862, but was introduced to cultivation by Dr. Regel of the St. Petersburg Botanic Garden. It is a tree said to attain a stature of 40 feet to 50 feet. The generic name commemorates Eberhard Ides, a Dutchman who travelled in China 200 years ago.—W. J. BEAN.

A new Dahlia.—In looking over your notice of the National Dahlia Society's recent show at the Crystal Palace, I see that no mention is made of a new Cactus seedling *Zoe*, by Messrs. J. Burrell and Co. of Cambridge, which gained a first-class certificate. The colour is pure white and the flower slightly incurved. I should be obliged if you would kindly give mention to this new seedling in your next issue.—H. BROUSSON, *Hon. Secretary.*

Impatiens Oliveri at Kew.—As a bedding plant in a warm situation at Kew this plant is very fine. It should become a welcome addition, and help to add variety to sub-tropical bedding. A fault some people find with it is that the plant is never a blaze of colour at one time. This, to my mind, is more than compensated for by the persistency with which it flowers, coupled with the beautiful foliage and habit of the plant. In sheltered positions on terraces it is an ideal plant for specimens in tubs where such plants as *Hydrangeas*, scented-leaved *Pelargoniums*, and *Fuchsias* are used. It grows very quickly; two plants in tubs rooted from cuttings in the spring of 1904 (about eighteen months old) are 6 feet in height and 14 feet in circumference. They commenced flowering when two months old, and have continued to do so ever since. Easily raised from seed or rooted from cuttings in a propagating frame with bottom-heat, the plants should be a fair size when bedded out. In colour and size the flower very much resembles *Mitonia vexillaria*.—A. OSBORN.

A new race of Dahlias.—At the recent exhibition of the Dahlia Union at Earl's Court several bunches of an entirely new strain of Dahlias were shown, described by the raiser, a Hollander, as *Peony-flowered*. The title is by no means an unsuitable one, as the flowers are very large, 6 inches to 7 inches across, have long, flattish petals, and are of semi-double character. One variety, flowers of a beautiful satiny white, the petal in double rows, and having clear yellow centres, greatly resembled some of the Mount *Peonies*. Out of the number staged, the white referred to, Baron de Grancy, Gloire de Bodin, deep pink, Mr. Brunton, white, much flushed with mauve, petals pointed, and flowers greatly resembling those of a *Clematis*, and Duke Henry, scarlet, flushed crimson, were the best. The average height of growth was not stated, but at least all the flowers had quite long, stiff stems, and evidently they must, on the plants, stand up boldly above the foliage. The most pleasing flowers, undoubtedly, were those devoid of eye petals, and having also but two circles of ray florets. It is well to remind those who may be disposed to regard this new race with disfavour, that there is no telling what may be in time evolved from them. When Juarrezi was first introduced it was received with anything but enthusiasm, because it presented such a strange break away from the heavy blooms Dahlia growers had been most familiar with; not even Mr. Henry Cannell, in introducing it, could ever have imagined such wonderful development and progeny from it as was seen the other day at Earl's Court.—A. D.

Pompon White Lady.—This is a variety of the early-flowering pompons which is seldom met with. In the Midlands I have seen it in very fine form and condition, and now in the South the plants are doing exceptionally well. The flowers are of small to medium size, of beautiful form and of a bluish colour. They are produced in the greatest profusion. Grouped in colonies of half-a-dozen, the plants have a fine effect in the border in late September. This plant has a capital constitution and is a robust grower.—D. B. C.

Late-rooted plants of Chrysanthemums.—I have frequently mentioned the value of the early-flowering Chrysanthemums when propagated quite late in the spring or early summer. Numerous are the instances in the present season of the plants having done well. There is a tendency among growers to propagate the early kinds in December and January, and it must be admitted that such pieces invariably make large and handsome plants. I have just been admiring a batch of plants that were propagated in late spring, and no one could wish for a better lot of plants from which to procure a supply of cut flowers. They are typical of what such plants should be, being short and sturdy, the branching growths giving a fine crop of richly-coloured blossoms in charming sprays. Some of the plants are lifted and placed in 6-inch pots, and very pretty pot plants they make.—D. B. C.

Rosa sericea red-spined.—Perhaps the most striking among the new plants exhibited at the International Horticultural Exhibition in Edinburgh on September 13, 14, and 15, was the Rose exhibited in this name, and for which a first-class certificate was awarded to Messrs. Vilmorin-Andrieux and Co. It was raised by M. Philippe Vilmorin and exhibited by Messrs. Paul and Son, Cheshunt. It was not in flower, but the great feature of this Rose was quite evident. This lies in the broad spines which are ranged along the branches almost continuously, and which are of a bright red. It is a hybrid, it appears, and so far as one can judge it is unfortunate that the name *sericea* has been used at all, so unlike is it to that species, unless it may be that the flower resembles it. Mr. George Paul, who had seen this Rose at Les Barres, informed me that the plant grew 8 feet or 10 feet high, and that the appearance of its arching stems with the light upon the rich red colouring of the spines made a remarkably fine picture. This one can well understand from the appearance of the branches exhibited in Edinburgh. A Rose such as this ought to be welcomed by many who like distinct habit of growth as well as beauty of flowers.—S. ARNOTT.

Kochia scoparia.—I was very interested in this prettily-tinted plant the other day when visiting Cranbrook Park, Ilford. It has been used very extensively in the bedding there this season, and has attained a height of some 2 feet in most cases. For autumn colour effect it is very useful, and owing to its light slender branchlets should be of great service for mixing with cut flowers for table decorations, &c. I am unable to give its origin, but I believe Messrs. Cannell of Swanley reintroduced it a few years ago. The seeds should be sown in a cold frame in early spring for the following summer.—GEORGE BURROWS.

Roman Hyacinths.—On page 173 "R. P." stated that it is a mistake to think Roman Hyacinths can be obtained in flower by or before Christmas unless they are potted up, placed out of doors, and covered with Cocoanut refuse, or some other protecting material for several weeks. While such treatment is followed by those who grow them in quantity, it is by no means necessary in order to obtain flowers by the stated time. Having a small greenhouse and not wishing to plunge the bulbs out of doors, some years ago I tried the experiment of potting

four bulbs in a 5-inch pot, and standing them in a greenhouse where a miscellaneous collection of plants was grown. They were potted during the latter part of August, and of course at that time plenty of air was always left on the house. They rooted just as well as if plunged, and the earliest were well in flower before November had passed. Till the end of September, or nearly so, plenty of air was left on day and night, after then it was shut up when necessary in order to maintain a temperature of 45° to 55°. In every case the pots were full of roots before top growth commenced. So great was my success in thus growing Roman Hyacinths in a small way that I have followed the same treatment annually, and always with the same good results.—T.

Pentstemon Newbury Gem.—Several notes on this plant appeared in THE GARDEN last year. On page 218 of the issue for October 1 Mr. S. Arnott mentions that he could find no record of its origin. Several plants flowering in the herbaceous border at Kew last year under the above name were identified at the Herbarium as *P. Hartwegii* of Bentham. This is the correct name of the plant figured as *P. gentianoides* in the *Botanical Magazine*, tab. 3661. The figure and description of this plant appear to fit Newbury Gem in every particular. Perhaps it looks a little more straggling in habit; but this I take to be due to the figure being of a seedling, our plants being propagated by cuttings. It is a native of Mexico, and was found by Humboldt and Bonpland growing on the slopes of the Toluco Mountain at an elevation of 11,500 feet. I remember once being told that the plant was named Newbury Gem because it originated in a vicarage garden at Newbury in Berkshire. A white variety (*P. Hartwegii* var. *alba*) is flowering freely at Kew at the present time, growing in a bed in combination with *P. campanulatus*, a purple species of very similar habit.—A. O.

Pear Beurre Hardy.—Large numbers of this Pear are now grown in America and elsewhere, and the supplies of imported fruits are considerable. Excellent samples are in the markets now, large, handsome fruits, and the flavour is especially good. In its best condition this is a fine and useful Pear for its season, and the tree is unsurpassed in vigour of constitution. Few varieties make such strong growth on the Quince stock, and I have had trees on that and the Pear stock of the same age that could scarcely be distinguished in size, though there was a perceptible difference in the cropping on the two stocks. As an intermediate stock for double grafting I have never tried a better variety, though

some growers have found a few delicate Pears succeed better with other varieties as the intermediate. When the fruits of Beurre Hardy are not too ripe they are melting, sweet, and perfumed, the flesh very white and refreshing. Upon the heaviest or richest soils the tree is liable to make excessive growth, and thus delay profitable fruiting unless root-pruning be resorted to occasionally.—LEWIS CASTLE.

STOVE & GREENHOUSE.

THE STAG'S-HORN FERN.

(*PLATYCERIUM ALCICORNE*)

A SPECIMEN of one of our most useful Ferns is represented in the illustration. It was introduced from New South Wales nearly a hundred years ago. Though easily propagated, and withstanding more hardships than almost any plant, it is not so much grown as it deserves to be. I remember on one occasion finding this to be the only plant that had survived in a neglected conservatory. Some time ago I received a letter from a gentleman in America who had made a collection of the *Platyceriums*, and he stated that it was not only in the fernery that they were useful, for he had also used them for house decoration, and they were always much admired by all who saw them. They may be grown in a variety of ways; perhaps the most useful is in pockets formed of virgin cork. The best method of propagating is to fix a plant on a good sized block of fibrous peat, wired round so that it can be hung against a wall. The roots will soon spread through, and young plants are formed from the bulbils which appear on the underground stolons. They may be left until



THE STAG'S-HORN FERN (*PLATYCERIUM ALCICORNE*) AT HIGHFIELD GARDENS.

they have made fairly good plants. Where peat is not to be had an open basket may be filled with leaf-mould and sand, but it is not quite so easy to remove the young plants from the baskets for transfer to the pockets. Peat, leaf-mould, and sphagnum moss may be used, the plants fixed firmly against the back of the pocket, working in a little of the compost between. When grown in pots a thick piece of wood should stand up a little above the surface to which to fix the plant. The pots may be made about half full of broken crocks, and filled up with the compost as above. This Fern may also be grown on a flat board without using any compost. If fixed with wire and hung up in the fernery the decaying flat or basal fronds provide material for the roots to spread into, but they do not stand so well as those given more material.

There are now several improved varieties, *P. alcornae* major being one of the best, and one recently shown under the name of *P. Mayii* should prove desirable. There are several other *Platyceriums*, some of which are more imposing in appearance, but they mostly require more warmth than the old favourite. *P. Hillii* is perhaps as hardy. This is a native of Queensland. The basal fronds curl downwards, and the deep green fertile fronds are more erect, with the end segments turning over. *P. Veitchii* is pale green, with a glaucous shade. The long, narrow fronds stand nearly erect, curling over at the points. *P. Willinckii* is of quite a different habit. The broad, basal fronds, when grown in a hanging pocket, stand up, and the long, much-divided fertile fronds hang downwards; these are of a pale greyish green. For baskets or for hanging against a wall this is one of the most effective. *P. Stemmaria* (or *æthiopicum*) is a noble species, with very large basal fronds, and the fertile ones are broad and thick, with two broad lobes, which in the older plants are again divided into two smaller lobes. This has sometimes been confused with *P. biforme*, which, however, is very different, having in well-matured plants very long, much-divided fronds with broader lobes, on which the spores are produced. I have only seen dried fronds of this, and I doubt if it is now in cultivation.

P. angolensis is given as a variety of *æthiopicum*, but it is very distinct; the large, shell-like basal fronds are nearly flat. *P. grande* when grown into a large specimen is one of the most imposing Ferns we have. The barren fronds are very large, spreading, and somewhat recurved and deeply lobed. The fertile fronds, usually produced in pairs, hang down, and may attain to fully 3 feet in length. This species, as far as I know, can only be propagated from spores. Seedlings which I have raised have in some instances taken ten years before producing fertile fronds. All the other species may be raised from spores, and some variations may be found among the seedlings. *Platyceriums* may be more quickly established from bulbils, as referred to above, in the same manner as with *P. alcornae*. During the time they are making growth a moist atmosphere with a little shade is advantageous, but after the fronds are well developed they may be fully exposed.

A. HEMSLEY.

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(Continued from page 204.)

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C. HARMAN PAYNE.

(To be continued.)

THE FRUIT GARDEN.

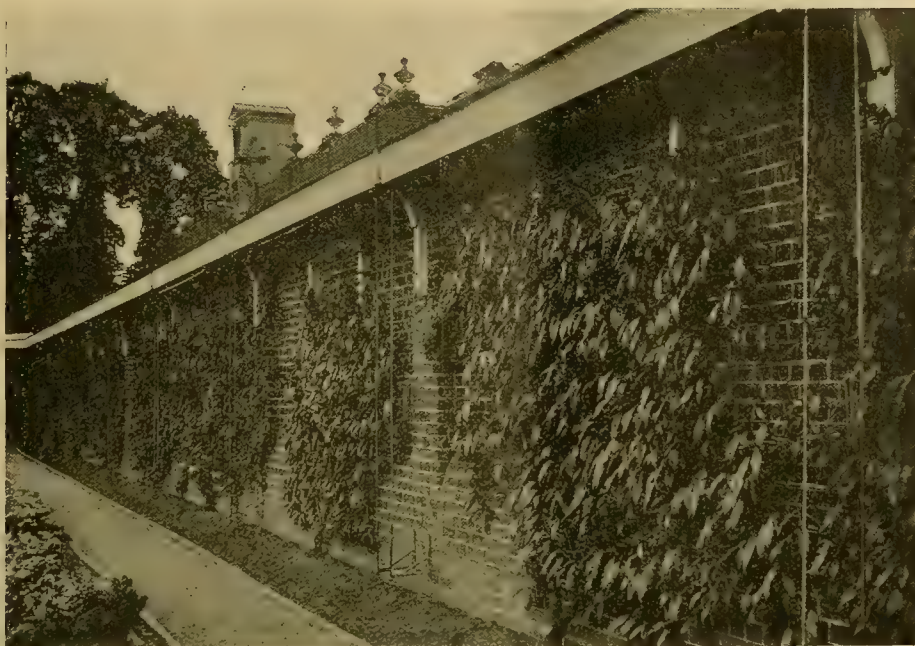
THE BEST GOOSEBERRIES.

YOUR article on Gooseberries in THE GARDEN, page 113, induces me to make a suggestion, viz., that some experts might be asked to favour readers of THE GARDEN with a list of the very best, size and fertility being of importance if the flavour is really first class. Books of reference and catalogues are very puzzling, because of the generous descriptions of almost all named varieties, and because of the differences of opinion. I have planted sixty bushes of the following: Companion, Warrington, Industry, Red Champagne, Antagonist, Careless, Lancer, Snowdrop, Whitesmith, Glenton Green, Langley Green, Overall, Thumper, Catherina, Early Sulphur, Keepsake, Telegraph, Langley Beauty, Leveller, and Yellow Champagne, and I hope in time to discard those that are inferior and propagate from the others. It would, however, be of the greatest importance to novices if about eighteen varieties could be named that are universally recognised as belonging to the first rank for eating rather than for show.

Dublin.

NOVICE.

[We have quoted our correspondent's letter at length, because we believe it represents the wishes and feelings of a great number of our readers, who are very fond of and appreciate a good Gooseberry to eat, and are desirous of planting those only which possess good flavour. When our correspondent has satisfied himself as



THE PEACH WALL AT THE LODGE, HOLYPORT.

(Note the coping at top, to which blinds are attached in spring to protect the trees at night when in flower.)

to which of the sixty varieties he has planted are the best, we shall be glad to publish the result if he will communicate the same to us. With regard to the quality of the flavour of Gooseberries, this does not depend entirely on the variety, but very much on the position and locality in which the fruit is grown. The Gooseberry is a British plant, and succeeds better in the northern parts of the country than it does in the southern parts. This should be borne in mind by those about to plant, especially in warm localities. The fruit will not succeed if planted in hot, dry positions—it does not matter what the variety may be—it will soon be infested with red spider, and then it is good-bye to all chances of good flavour. Therefore, the bushes should be planted in moderately cool positions, where they are not exposed to the fierce heat of the midday sun, and in deep, rather heavy soil if possible. The fruit will not succeed well in shallow, hot, or poor soil; therefore, such soil should have added to it some marl or other heavy soil and manure at the time of autumn and winter trenching. Another important point to observe in the culture of Gooseberries is to plant the dessert varieties in a quarter or row by themselves, and the cooking and preserving sorts by themselves, if any are grown. The latter will be picked green for cooking, and before they are quite ripe for preserving, and therefore will require no protection against birds in the way of netting. It is different with the dessert varieties. Those should have a strong framework of timber fixed round the quarter, and made high enough to allow a grown-up person to stand up when covered with netting. Thus the bushes would be safe from the ravages of the birds, and the supply of fruit be extended for many weeks. The finest of dessert Gooseberries we have seen are at Penrhyn Castle Gardens, North Wales. Here Mr. Speed, Lord Penrhyn's gardener, adopts the system of planting them on upright wire trellises as espaliers. The wires are about 5½ feet high and 5 feet apart. The trees recommended for this mode of planting are what are usually termed gridiron trained with about four upright stems to each tree. The wire trellis forms an excellent framework upon which to hang the netting when the fruit is ripe. The varieties of Gooseberries are so numerous that scarcely any two growers

would select the same eighteen for best. However, we give the following the preference. It must be remembered that the best flavoured are amongst the smaller sorts, therefore mere size must be sacrificed: *Red*—Early Red Hairy, Keen's Seedling, Red Champagne, Red Warrington, Scotch Nutmeg, Speedwell, and Whinham's Industry. *White*—White Venus, Lady Leicester, and Whitesmith. *Green*—Green Gascoigne and Pitmaston Greengage. *Yellow*—Broom Girl, Langley Beauty, Rumbullion, Golden Gem, Langley Gage, and Leader.—[Ed.]

NOTABLE GARDENS.

THE LODGE, HOLYPORT.

THE Thames Valley is a home of beautiful gardens. The fertile meadow land that stretches away for miles on either side of the winding, flower-decked banks is admirably suited to the forming of a garden, and many from time to time have taken advantage of this, with the result that to-day probably no other spot in the country can boast such a proud array of gardens. The royal pleasaunces at Windsor, the hardly less famous grounds at Cliveden, those at Taplow Court, at Henley-on-Thames are some of the most notable Thames Valley gardens; but there are others, of varying extent, sometimes with the greenest of green lawns stretching down to the river's edge, or, again, snugly sheltering in some old-world village, just out of reach of the pleasure seekers that crowd the reaches of the Thames in summer time.

Holyport, which, roughly, is equi-distant from Windsor, Maidenhead, and Bracknell, is such a village, and bordering one side of the village green stands The Lodge, the residence of S. Heilbut, Esq. As old-world as the village itself are the immediate surroundings of the house—flowers that were beloved of generations ago, standard Roses, large bush Roses, and homely shrubberies.

A lovely weeping standard of Rose Bennett's Seedling amply atones by its graceful form and wreaths of snowy blossoms for the stiffer, bare-legged plants that flank the garden walk. An old Ivy-covered pergola, the gnarled and rugged stems themselves forming part of the structure, leads away from the Rose beds and mixed flower borders by creeper-covered walls towards that more prosaic quarter where fruits and vegetables are pre-eminent and flowers a minor consideration.

Walls are a feature of The Lodge gardens; they greet you at every turn. We use the word "greet" advisedly, for none is bare; either flower, fruit, or evergreen leaf is there. Climbing Roses, Wistaria, Clematis, and other plants luxuriate on the older walls, while luscious Peaches, Plums, and other choice fruits stud the leafy shoots which symmetri-

A few more steps brings one to the orchard house, where the pot fruit trees, for which The Lodge gardens have become famous, are grown. Hundreds of fruit trees are grown in pots, and they supply fruit from early summer until late autumn. Peaches and Nectarines are most largely cultivated, although Plums, Pears, Figs, and Apples are also grown. These trees, some of them ten years old or more, are models of good culture, and the crops they yield bear ample testimony to the skilled treatment they receive; in fact, we might make this remark with equal truth concerning the other departments of these well-kept gardens. The fruit trees, both out of doors and under glass, the vegetable plots, and the plants in the houses bear signs of being most carefully tended, and each gives of its best. This is doubtless due to the system of management in vogue

features similar to the Blenheim Orange, differed from it very materially. A fact has come under my observation which I thought might interest you. Some years ago I planted a hedge of the Myrobalan Plum, commonly spoken of as the Cherry Plum. It is used largely for hedges, being of rapid growth and bearing very long sharp spines, which are very difficult to negotiate. There is, however, a kind of Cherry Plum tree which bears enormous crops of handsome Plums, which, coming as they do very early indeed, are cultivated pretty generally in this neighbourhood. Now the point is this: I allowed three of the trees from the hedge to run up, and had these grafted. The person who grafted them for me cut the *whole* of the grafts from one tree at the same time, and came directly to my place and put them in. Now the strange part is this: the trees grew well, and in the second year bore a large crop of fruit. When the fruit ripened, much to my astonishment that upon two of the trees was red, like this kind is in this neighbourhood, while that of the other was a beautiful bright yellow. How was this? There is no yellow Plum tree of this species in the neighbourhood, so that the grafts could not have been mixed in any way. Can it have been that the tree bearing the yellow fruit was grown from the stone of the yellow variety, and that this had given its colour to the fruit? No one seems to be able to offer me an explanation, and the thought occurred to me that you might be able to do so.

JAMES HARDING.

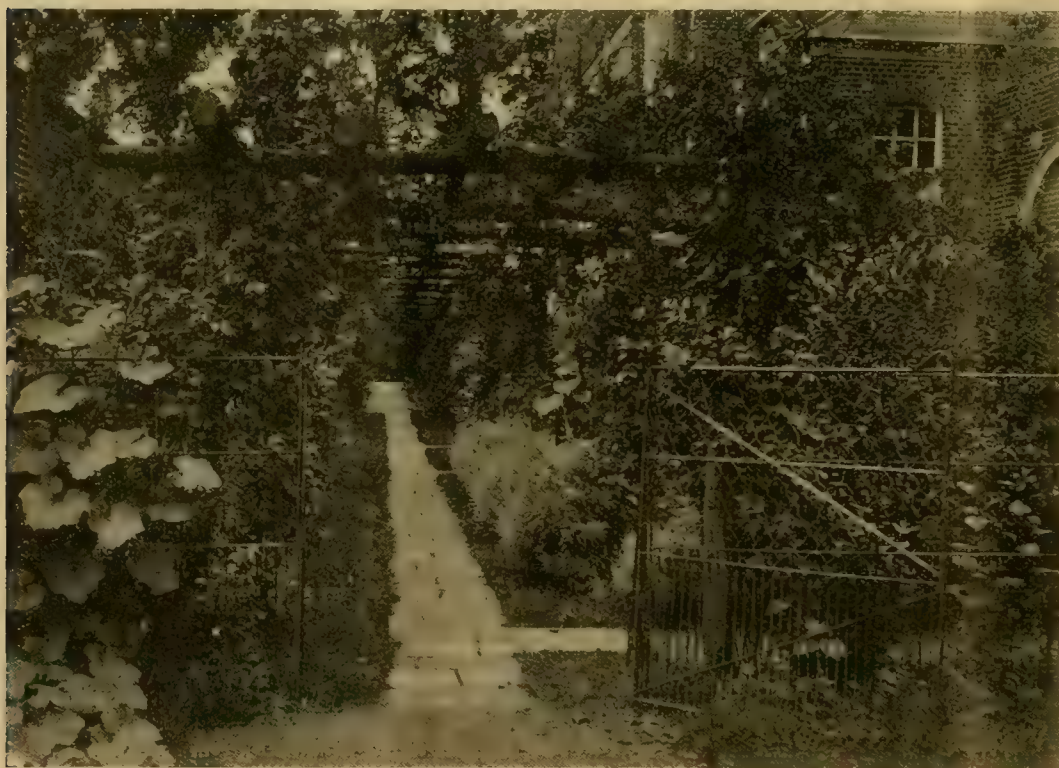
Houndwood, Street, Somerset.

[There is no doubt that the stock upon which any variety of fruit tree is grafted exercises an influence on the grafted portion of the tree as long as the tree exists. But generally speaking the influence is not so marked as to call for special notice. There are many exceptions of course, and those above related by you are most interesting. We remember some few years ago of a new variety of Vine being grafted on the stem of an old one. The graft proved quite a success, and the new Vine grew rapidly, and in the course of time produced fruit in abundance; but the remarkable thing about it was that a good way up the stem of the new variety one shoot of this new sort produced a perfect bunch of the old variety. This incident at the time aroused much interest and curiosity, and many were the theories advanced as to the cause. The conclusion came to was, that the mating of two sorts together resulted in the commingling of the characteristics of the two varieties in the sap, and resulted, as in the cases mentioned, in an abnormal development of the old stock. In the case of the Myrobalan Plum you mention, we agree with you that probably a previous stock was exercising its influence in this mysterious way.—ED.]

NICOTIANA SANDERÆ.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Having read with interest the several different opinions in THE GARDEN on the new Tobacco plant, I venture to give my own experiences. Having raised a small batch of seedlings in March last, the plants were pricked off into 3-inch pots when the second rough leaf appeared. Towards the end of May some were planted from these pots into the open border, others were transferred into 10-inch pots, and eventually



THE PERGOLA AT THE LODGE, HOLYPORT, THE RESIDENCE OF S. HEILBUT, ESQ. (Planted in the autumn of 1903.)

cally cover the newer ones. A path through the pleasure grounds leads by shrubby beds and specimen trees to the pergola shown in the accompanying illustration. As may be seen, it is now fairly well covered with Roses, Clematis, Vines, Honeysuckle, and other plants in great variety; two years ago it was bare.

A mingling of the old and the new is not always satisfactory in garden design, but what could be more delightful than the stone-paved pathway, Lavender edged, and typical of many a country cottage yard, that leads beneath the pergola, the newest feature of an English garden? Beyond the pergola and the tennis court—one of comparatively few in this country—lies the water garden, its placid surface visible here and there between clumps of Water Lilies, and its banks planted with Spiræas, Irises, Gunnera, Senecio, and other moisture-loving plants.

here, for Mr. J. B. Westropp, who has the superintendence of the whole estate, has specialists for each department of the garden.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

VAGARIES OF GRAFTED APPLE TREES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—You may remember a few years ago I addressed a letter to you on the subject of grafting, more particularly as to the special point whether the original tree might influence to any appreciable extent the grafted portion. I mentioned the fact that I had grafted some Blenheim Pippin grafts on a Cider variety, and that in several cases the fruit, although presenting

plunged in the border; these latter have done the best, having been in flower since the first week in July; some of the plants are from 2 feet to 3 feet in height, and of the same diameter. As regards colour they vary, some are bright and pleasing, while others are dull. I have some plants in sunny situations, but they appear to prefer a partially shaded place. Inter-mixed with *N. sylvestris* in a large border, and with *Dactylis glomerata* as an edging *N. Sanderae* is very effective.

CHARLES KNIBB.

Lympstone House Gardens, Devon.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—You have had many letters about the new *Nicotiana Sanderae*, but still you may like to know how it has done in a Scotch garden in Berwickshire. We have quite a hedge of it, 16 feet long, 6 feet thick, and 4 feet 6 inches high. I send some specimen flowers; there are three shades, the darkest flowers are also the largest. The seeds were raised in pots and pricked out into boxes, and planted out at the beginning of June. The gardener has tried some under glass, but it has not done nearly so well as outside.

M. T. BAILLEE.

Dryburgh House, St. Boswells, N.E.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—The differences of opinion as to the value of the above plant, expressed by your correspondents may, I think, be reconciled from the fact that the plant is apparently much affected by position, and probably also by soil. At the beginning of the present month I saw two large circular beds in the winter garden at Bournemouth planted with it. The equal distribution of the numerous flowering branches over the whole beds, and the brightness of the colour of the flowers had, at a short distance, a fine effect, which was heightened by the surrounding green sward. A somewhat similar effect is produced by a circular bed in the Northernhay Gardens at Exeter, where the plants, as at Bournemouth, are massed, with the addition of a *Yucca* planted in the centre sufficiently high to be well seen above the *Tobaccos*. In a border in my garden I put out single plants in the early summer, all of which made rampant growth, with coarse foliage, and dull, unattractive flowers, the brilliant colouring of a neighbouring *Lobelia cardinalis* putting the *Tobaccos* quite in the shade. Besides this the plants seem particularly attractive to snails and slugs, the leaves of some of my plants being riddled by these enemies. It would seem, therefore, that *Nicotiana Sanderae* is adapted more for grouping in large masses than for individual planting, even in moderately wide borders, and that it will not supplant the better known *N. affinis*, which has the additional recommendation of its perfume.

JOHN R. JACKSON.

Claremont, Lympstone, Devon.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—The above plant appears to be the subject of considerable discussion. Evidently it is variable both in the colour of its flowers and its habit of growth. Personally, I do not like the colour of the flowers, and certainly they are not so pleasing as those exhibited before the Royal Horticultural Society's committees. This, however, no doubt was due to their being grown under glass, and at a time of year when there was less light and sun. To say that it is not a useful plant would be saying what would not be correct, but I think its proper place is in the mixed border. The colour is somewhat difficult to associate with other flowers, but in one or two cases it has pleased me very much. It makes a splendid companion to *Hyacinthus candicans* and *Nicotiana sylvestris*. Another plant makes a happy contrast, viz., *Arctotis grandis*, planted thinly

with the *Nicotiana*. There is a bed of it here which is decidedly dull during bright days, and seems to want relief of some sort. Probably if the plants had been planted at three times the distance from each other with some low, bright-coloured yellow *Viola* or white *Antirrhinum* as a groundwork, the bed would have been more pleasing. It should not be planted in rich soil, for then it makes too much luxurious foliage at the expense of flower-stems. In rather poor sandy soil it is very floriferous indeed.

Cirencester.

T. A.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I am glad to find your correspondent C. H. Snook speak so highly of this plant. I have grown it largely this season, and with me it is splendid. I must confess that at first I was rather disappointed with it, and I should certainly like it better if it had a little more perfume. The seed was sown early in February, and good strong plants put out by the end of May in rich soil. I grow the plants in masses, and find them do best this way. Some of them are from 4 feet to 5 feet high and the same distance through. The flowers vary in colour and the plants in habit. I have not had a worthless plant either in colour or habit amongst them. Evening is the time to see this plant at its best. Many a stroll have I taken this summer round the garden between six and eight o'clock to look at the new *Nicotiana*. I feel quite satisfied that the more this plant is known the better it will be liked, and I am quite certain that this is one of the new things that has come to stay.

Ashwellthorpe, Norwich.

T. B. FIELD.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I differ very much from the opinions expressed in THE GARDEN of the 16th ult. with regard to the growth of this plant. I have it growing in a north border and it is splendid. I planted them out in June. Two of the plants are nearly 3 feet through and 4 feet high, and each plant has had hundreds of flowers. For small borders it is too vigorous, but a first-class plant for a good herbaceous border. In my opinion the less it is "coddled" the better colour you will get in the flowers. I quite agree with the remarks as to its culture in tubs or pots. I have three plants in pots in the greenhouse at present, and I must say that they make very graceful specimens. The best way to grow them is by pinching the shoots so as to get twenty or thirty spikes from top to bottom of the plant. This is how mine were treated.

Ilkley.

FREDERICK JAMES CROSS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—This has proved a great success here. Given a large border it has been a mass of splendid colour for the last two months, and is just as fine now as it was in July. It is undoubtedly a thing well worth growing where colour effect is required, few annuals lasting in full beauty so long. The flower-spikes are over 5 feet in height, the blooms are produced in great abundance, and the colour is distinct and good. The border has a sunny aspect.

KENNETH McDONALL.

Logan, Wigtownshire, Scotland.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I would like to mention that in a beautiful place near here, on the 26th ult., there was to be seen in great beauty a circular bed of *Nicotiana Sanderae* a mass of lovely colour, smaller blossoms than the usual white *Nicotiana* has, and without its fragrance, but of a peculiar and beautiful shade of red, most ornamental. The head gardener said he had only had a 1s. packet of the seed. The leaves were fine, as well as the blossoms.

MRS. CONSETT.

Ashleigh, Dorking, Surrey.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I have read with much interest the different letters in THE GARDEN in reference to *Nicotiana Sanderae*. I am of opinion that it is a splendid plant for beds. A bed of *Nicotiana Sanderae* planted at the end of May has been in bloom ever since. The seed was sown on February 3, and placed on a hot-bed. When the seedlings were large enough to prick off they were placed in 3-inch pots and grown on, changing them into 4½-inch pots, and eventually planting them out into the bed. The bed, which has been a great attraction, was planted in this way: The edging was composed of *Lobelia Emperor*; the next row *Mme. Salleroi Pelargonium* with *Cineraria maritima*; third row, *John Gibbons Pelargonium*; the centre of the bed being filled with *Nicotiana Sanderae*, with a few *Nicotiana sylvestris* as dot plants. As one of your correspondents states, the flowers are not so large as *Nicotiana affinis*, but to my mind the plant is more attractive, with its branching habit and numerous blossoms which do not close up like *affinis* during the day.

S. WATSON, Superintendent.

Manor House Gardens, Lee, S.E.

[We cannot publish any more letters about *Nicotiana Sanderae*.—Ed.]

THE PASSING OF SUMMER.

AS I write these few notes after a leisurely and comprehensive walk round the garden, I cannot help feeling sad at the thought that the summer is on the wane, and that autumn gales and chilly mists are looming large before us. There is a decidedly autumnal sound in the south-westerly breeze; the leaves are already turning golden or red-brown, and some are fallen and are scurrying across the lawn in wild career. I hear the sound of many voices, strange voices for the most part, decidedly not hushed nor musical, for it is Hop-picking time, and we have been inundated by extra pickers from the East End of London in thousands. And I also hear the (to me) more pleasing sound of the guns at work in the stubbles and Turnips all round the village, it being the 1st of September, and partridges being plentiful this season.

We have had a wonderful summer certainly, with more than our usual allowance of sunshine, and we ought not to grumble; but for all that it is daily becoming a less congenial task to perambulate one's garden. If it were not for the Roses and a few of the later-flowering shrubs and perennials, one would hardly derive much further enjoyment from it for some time to come. This is doubtless all too true, but I do not wish to occupy any more space with such melancholy reflections; let me therefore make a few brief remarks on what I have seen to-day.

Romneya Coulteri.—I find my plant of the hairy-budded species (*R. trichocalyx*, as someone has aptly named it) has two or three late buds nearly ready to expand, but I can find none on the typical plant. Only possessing one of each variety, it may be presumptuous on my part to record my opinion, but it has appeared to me this summer, when both bloomed very freely, that the flowers of the type are much more sweetly scented than those of the hairy-budded form, the latter having but little smell, and that, perhaps, rather disagreeable. If this is a fact it would serve to still further distinguish the one from the other.

Colchicums.—A clump of *C. speciosum* in the border of a *Rhododendron* bed, probably

influenced by the heavy rains at the beginning of the week, has suddenly burst through the ground with a miniature forest of pink buds, and one or two small patches of *C. autumnale* are, I see, following suit. It seems to me that this is somewhat earlier than usual. The other sorts I have, viz., *persicum*, *speciosum maximum*, and *Sibthorpi* have made no show so far. I had a sad mishap with some bulbs of the last-named a short time ago, cutting a couple of very fine ones clean in two horizontally with a spade. The halves were most carefully replanted with plenty of sandy soil round them, but I doubt their growing, the direction of the cut being decidedly against, at any rate, the top portions. I wish these most welcome flowers of the *Colchicums* did not "flop" so. Most of mine are growing in bare, untenanted corners, without the protection of any low carpeting plant, and I have an annual job to keep the weak stems upright. This time I am trying a ring fence of galvanised wire uprights connected by thin tarred twine. This is not very conspicuous, and I hope will prove efficacious.

Zephyranthes candida is making a good start, and already there are many of its delicate *Crocus*-like flowers dotted over the mound where it grows. It increases very fast here in light, deep, sandy loam, and flowers away gaily till cut down by the frost. It is occasionally used as a carpet plant for *Belladonna Lilies*, and such a combination must be glorious. I hope to try it some day.

Belladonna Lilies are just "spearing" through the surface of the soil under my greenhouse wall, one sheltered clump being already in full beauty. They are rather overshadowed at the present moment by *Crinum Moorei*, which, planted at the same time as they were, has now grown into a huge mass of stems 5 feet or 6 feet high, with an annual output of a dozen or more flower-spikes. It is going strong still, with many unexpanded blooms to open. It has certainly lasted more than a month already. *Zephyranthes rosea* and the *Sternbergias* look promising, but have not yet flowered. The autumn *Lilies* have been a decided improvement on the earlier ones. The *speciosums* are very fine and deliciously sweet, the variety *monstrosum* especially so. *Browni leucanthum*, which had two spikes with two flowers on each, and seems a most desirable *Lily*, is just over, while *Henryi* is fast going off.

Tigrinum splendens still blazes like a beacon fire across the lawn, and *T. Fortunei giganteum* is beginning to hang out some brilliant orange lamps from its tall stems. These stems, a short time ago, showed unmistakable signs of disease, as all my *candidums* also did; but two doses of

potassium sulphide saved the situation, and nearly all the buds will, I think, eventually expand. I may here remark that I dug up last month nearly the whole of the *candidums*, soaked them in potassium sulphide, rolled them up into yellow balls with flowers of sulphur, and then replanted them in new soil. The disease was very bad here this summer, and though it was checked by the fungicide at once and the spikes flowered fairly well, I thought prevention was better than cure, in view of possible future disaster.

It is about eight years since the majority of the bulbs were last disturbed. Can it be a fact that those growing so proverbially well

of so many foreign bulbs in a doubtful state of health; (2) keeping the bulbs too long out of the ground and planting them at the wrong time of year; and (3) planting them too deep in the soil.

Cyclamens are beginning to bestir themselves, I am thankful to say. Already a small rockery in front of the house is dotted with patches of small white flowers of what I believe to be *C. cilicicum*, and the other autumnal kinds are beginning to assume the "Sea Anemone" form, which means business. Can anyone, fearlessly and correctly, differentiate the various species of hardy *Cyclamen*? They are indeed a puzzle to me, reminding me of the genus *Eupithecia*, the so-called "Pugs," among the *Lepidoptera*. The nomenclature is terribly involved; there is such a jumble of *hederæfolium*, *europæum*, *autumnale*, &c., that even the praiseworthy article by M. Guiheneuf, in *THE GARDEN* of March 12, 1898, does not clear up the matter, though he has evolved something like order out of the chaos.

Yalding. S. G. REID.

(To be continued.)

ROSE GARDEN.

ROSE CHERRY RIPE.

(HYBRID TEA.)

CONSIDERING the scarcity of bright-coloured Roses among the dwarf-growing Hybrid Teas, any addition is welcome that produces a bright effect for bedding purposes. In the charming variety under notice we have a Rose that combines the hardy, vigorous growth and branching habit of the older rose-coloured Hybrid Perpetuals with the valuable perpetual-flowering qualities of the Hybrid Teas. *Cherry Ripe* is a Rose somewhat resembling *Alfred Colomb* in colour, of medium size, well formed, and double. It is exceedingly free-flowering, and, what is a very valuable trait, it possesses the delicious Rose scent of the old *Cabbage Rose*. Under glass in the forcing house *Cherry Ripe* is sure to prove a useful addition.

Its rich colour, which is much appreciated in the dull winter months, gives this variety a value that growers will not be slow to appreciate. P.

ROSE PAUL NEYRON.

(HYBRID PERPETUAL)

THIS giant among Roses is never so grand as in the autumn. Its flowers are borne upon strong growths, untouched almost by that terrible enemy of certain kinds—mildew. It belongs to the *Pæony* type of Rose, huge and coarse. Nevertheless, it is a good garden Rose. The colour is deep rose, with a silvery reflex. Blooms of this Rose often



ROSE CHERRY RIPE.

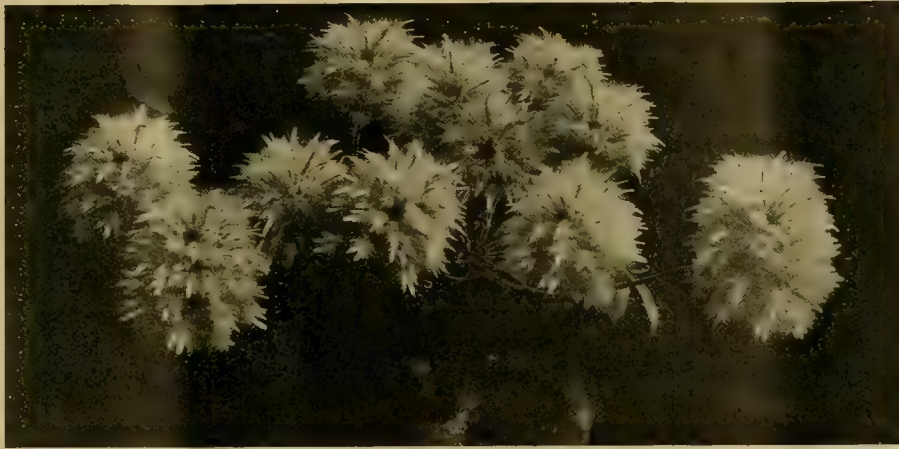
in cottage gardens owe their immunity from the dreaded fungus to their being left severely alone for a long time? For if one comes to think it out carefully, these cottage *Madonnas* have not been in their present positions for ever. They must have been moved and planted there at some former epoch, and must therefore have passed through the period of danger at one time or another. Yet they apparently passed through it spotless and unscathed, and still bloom luxuriantly year by year. I am inclined to think that much more likely causes of the disease are (1) the ever-increasing importation

attain 6 inches in diameter. In some gardens Paul Neyron is highly esteemed. It makes a bold display if a long border is filled with it. A few others are nearly as large as Paul Neyron. One is Edouard Morren, rarely seen now, but years ago highly esteemed. Another good variety is Mme. Eugène Frey. Its bold, rose-coloured flowers are very ornamental. While writing upon large Roses, I must not omit Anna de Diesbach, or Gloire de Paris as it is known abroad; Mme. Joseph Bonnaire, a huge pale pink; François Levet, a beautiful cherry red bloom, prettily imbricated; and François Michelin, the parent of Mrs. John Laing. All of these are worth growing.

NOTES ON HARDY PLANTS.

POLYGONUM COMPACTUM.

SO completely different is this little plant from the grosser members of its genus that one can welcome it the more and use it in ways wholly impossible with such as *cuspidatum* (which it most resembles), *sachalinense*, and *amplexicaule*. Its growth in soils of ordinary fertility does not exceed 1 foot in height, and although it is somewhat of a rambler, it does not root freely from the joints, and is altogether neater in habit, and rarely exceeds 3 feet in diameter. The leaves and flowers are both miniatures of *cuspidatum*, and in the autumn season, when all the flowers are open and the leaves begin to show many autumn tints, it is as pretty a rock or border plant as one could wish for. Plants in the bog and deep loam are not so effective, and it is only when planted in ordinary or poor soil that its best features are apparent. I can recommend it for the larger order of rockeries, planted high up, its growths trained to form a "torrent" of flower and foliage that will be valued at this late season, and for informal margins to herbaceous borders, planted close to the edging, so that its



TRICHINIUM MANGLESII. (From a photograph sent by Mr. W. J. James, Farnham Royal.)

growths can trail backwards to cover the site where bulbs, &c., have gone to rest for the season. Furthermore, it is exceptionally valuable as a marginal plant for shrubberies in the drier and fully exposed situations. G. B. M.

EUCOMIS PUNCTATA.

At the present time this interesting Cape bulb is a grand feature in the herbaceous border at Mr. Harmer's, Cringleford, Norwich. There are large clumps with their broad handsome foliage more or less spotted with purple at the base, from which rise tall cylindrical spikes of blossom ten to twelve in number, and these are surmounted by a crown of leaves, giving them a very quaint appearance.

Like many Cape plants, they are hardy on light, dry soils, and only require a little protection in winter by covering with ashes or leaf-mould. The foot of a south wall suits them well, and if associated with large hardy bulbs, such as the

Amaryllis (*Belladonna Lily*), they will help to brighten the border at this time of the year when flowers of this class are none too plentiful.

T. B. FIELD.

TRICHINIUM MANGLESII.

THIS is a very pleasing little plant. The flower heads are large and not unlike small balls of wool with pink skeins through them. The way to propagate it is by cuttings of the roots, the stouter ones being selected. If inserted in pots or shallow pans and placed on a shelf in a warm greenhouse they will root well. *T. Manglesii* is not a plant for ordinary gardens, but it is certainly interesting.

STERNBERGIA LUTEA MAJOR.

THIS form of *Sternbergia lutea* is for all practical purposes the best *Sternbergia* for extensive planting, and I think it shares with *Amaryllis Belladonna* the distinction of being numbered among the best bulbs of autumn. It flowers naturally in late September and early October, and several flowers are produced, contemporaneously with the leaves, from each bulb. In common with many bulbs from drier countries than our own, there is a little difficulty in permanently establishing it, but the free use of lime rubble in the soil helps the bulbs wonderfully, and where soils are naturally deficient in lime it is hardly possible to grow *Sternbergias* well.

Soils overlying chalk, when of fair depth, will grow *Sternbergias* well, and the naturally poor growth of grasses in such soils gives the *Sternbergias* a better chance of making headway than if strong-growing grasses handicapped them. *S. lutea major* is one of the best bulbs I know for rockery, border, or grass planting. The large cups of butter yellow flowers, exquisitely fragrant and freely borne, are too valuable a feature in the autumn season wholly to neglect, and those who wish can flower the bulbs well in pots — *Narcissus* fashion — with a minimum of trouble. It is a perfectly hardy bulb, and as old as the hills. G. B. M.



A FIELD OF ARUM LILIES IN THE GARDEN OF MR. H. M. ARDERNE, CAPE TOWN.

GARDENING FOR BEGINNERS.

SIMPLE HINTS.

GARDEN-MAKING: FOLLOWING THE BUILDER.—In the suburbs the speculating villa builder very often in his peculiar fashion lays out the garden for the purpose of selling the house, to the endless worry and expense of the purchaser. As the sole object is to get rid of the property at once, nothing is done to aid the purchaser in his cultivating operations. All the builder's refuse which is not worth carting away is covered up, and frequently all the top soil is carted away and sold, and the bad stuff from the foundations takes its place. The beginner, after taking possession, soon finds that nothing will grow in the borders, and the walks, which have nothing but a thin coat of gravel on the surface, soon get grown over with weeds, and are always damp and unpleasant to walk upon. I have seen many such gardens, and sympathised with the proprietor in his almost fruitless efforts to make things grow and thrive. Many, after struggling on for a time, submitting to failure in the hope that things may improve, at last give the whole thing up in disgust. Very often the contracting jobbing gardener is as much a failure as the builder. He may have had no training for the work beyond a short time in some second or third-rate garden. He has plenty of nerve, and his sole object is to get on and make money. Such men are not troubled with many scruples; therefore the beginner will do better to trust to his own resources, and, if he calls in help, he should get hold of a handy labourer and supervise him.

The Work to be Done is thoroughly to overhaul the place, bit by bit. It will take time, but the work is healthy, and, if we look to the future, the reward will be certain, for good, intelligent work never yet failed in yielding satisfactory results. The first thing to be done is to make a rough plan of the garden as we want it to be. The autumn is the time for planning and rearranging its main features; details can be worked out afterwards. If Roses or other creepers are wanted on the house, set out the border.

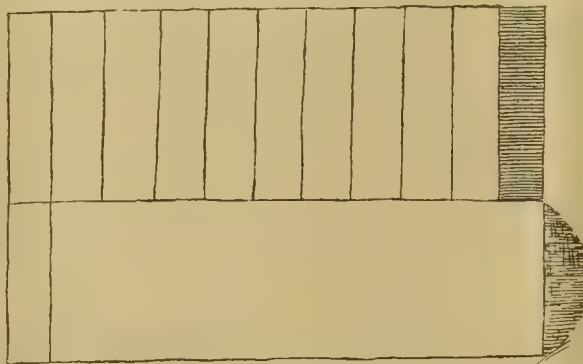
Trench and Manure the Ground.—Open a trench at one end of the border, the width we want, which for Roses should not be less than 3 feet, and should be more if possible, and from 2 feet to 2½ feet deep, taking out all brickbats and stones buried by the builder and placing them in reserve to form the foundation for the walks when we have time to attend to them. Lumps of clay, of which there are sure to be some if the subsoil is clay, can be worked into the bottom of the trench and covered with a layer of manure.

Roses like a Rather Heavy Soil, so the clay in the bottom when blended with manure will give size and substance to the flowers. The best soil will, of course, be kept on the top, and the border must be made up of the best soil, obtained thoroughly mixed with short manure, and I may say everything which can be charred by fire or has in it the elements of decay has some value as manure. A dressing of lime is always valuable in both new and old gardens. Mix the manure with the soil. Some beginners have an idea that the manure should be placed round the roots of anything they are planting. This is a mistake, which often ends in failure. Let the plants

search for their food. A little good loam mixed with a small quantity of very old manure will be beneficial at the beginning; but afterwards, if the soil has been properly aerated and blended, the roots will make their position secure, and supply the plants with nutriment.

Roses and other Climbers for Planting.—This is a matter that will be finally settled by each individual householder. Roses must have the best aspects. For the north side Veitch's Creeper (*Ampelopsis*), *Jasminum nudiflorum*, and the *Pyracantha*, or Fire Thorn. Variety is charming, but we want things to grow, and aiming at too much variety sometimes leaves unsightly blanks, but the three plants named above will thrive anywhere. If Ivies are wanted, Emerald Gem will soon cover a large space; Mrs. Pollock is a beautiful blend of gold and green; caenwoodiana is a close-clinging, small-leaved variety, and maderiensis variegata is the best white variegated kind.

Among Climbing Roses Gloire de Dijon is generally included, and the whole family of what



HOW TO TRENCH GARDEN GROUND.

are termed Dijon Teas are more or less good, Gloire Lyonnaise and Reine Marie Henriette are free of growth and bloom, though the latter is not so free as its parents; in fact, few Roses are. Others are W. A. Richardson, Rêve d'Or, Cheshunt Hybrid, Bouquet d'Or, Lamarque, and what a wealth of blossom there is now on the old evergreen Rose Aimée Vibert. This covers the front of a house near where I am writing.

There are other good Climbers among Clematises, Honeysuckles, Jasmines, Ceanothus, Cydonia, Escallonia, Forsythia, Passiflora, Wistaria, and Magnolia. There is no lack of suitable materials, which, if well planted in a suitable border, will make the house beautiful externally. For a neat wall plant where flowers are not wanted few things are more satisfactory than *Euonymus radicans variegata*; in fact, there are other *Euonymus* which make good wall plants. Every bit of bare wall should be covered. Domestic offices can be covered with low-growing things. Some of the China Roses are beautiful. Laurette Messimy, Fellenberg, and the old Pink China, or Monthly Rose, is always beautiful against a low wall. But enough for the present. Let the ground settle and then plant, but do not buy the rubbish commonly advertised. Go to a nursery where plants are well grown.—H.

Transplanting Evergreen Shrubs and Trees.—Nurserymen and others engaged in garden-making

will move evergreens safely from the middle of September to the middle of April, or even later, so long as the plants are not making new growth. If there is a best time it will be between the middle of September and the end of October, or from the middle of March to the middle of April. But the success or otherwise depends upon the way in which the work is done and the attention given afterwards. When plants are moved from a sheltered position to an exposed one, some temporary shelter or wind-break should be given the first season after planting. Then when hot weather sets in, a little shade, such as can be easily erected by fastening a mat to two stout poles, will save the choice plant's life, with an occasional damping over with the syringe or hose and a mulch of some non-conducting material over the roots. Generally short grass will do. If the plants are moved carefully, and as many roots as possible saved in lifting, the roots carefully spread out when planting and made firm, no plant ought to die unless neglected. Many people never think about syringing or even watering till the foliage turns brown, and then it is generally too late. If plants have to be bought, always purchase from a nursery where transplanting is regularly done. There are things sold which must perish from neglect of this cause.

Trenching Garden Ground.—There is hardly any work in the garden that is of more importance than trenching. Unless ground is trenched periodically, so as to increase its depth and improve its fertility, it will never produce the best crops that it is capable of doing. Trenching should be carried out in a thorough and systematic manner, and the manner of doing it depends upon the nature of the soil. The ground to be trenched should be divided into two equal parts by a line (made with the spade will do), running its full length. Then from the top end of one half dig out the soil 2 feet deep and 2 feet wide, placing it just off the end of the other half, as shown in the accompanying sketch. Then fork up the bottom soil of the trench and dig the next lot of soil into it, thus making another trench which must be filled in the same way, and so on until the half is finished. Then the worker, turning round and working back in the opposite direction, takes out a trench at the end of the other half of the ground, filling the last trench on the first half with the soil taken out. When the worker has trenched the second half of the ground he will, of course, have a trench left at the end from which he started. This must be filled with the soil taken out of the first trench made, and which was placed in position for the purpose. It will be seen that in trenching land the whole soil to the depth of 2 feet or more changes places; the subsoil comes to the top and the surface-soil is buried. Unless the soil has been cultivated for some time and has been trenched before, complete trenching should not be carried out, for the subsoil would most probably be unsuitable for bringing to the top, while the surface-soil being the best would be buried. However, to get the best results from garden soil it ought to be trenched periodically. Half or bastard-trenching is the proper thing to do if the subsoil has not been disturbed before. To do this the operator marks out his ground as before, but, instead of taking out the soil to the depth of 2 feet, he must take it out only 12 inches deep, merely turning over and thoroughly breaking up the bottom spit—the subsoil. Some

decayed manure should be placed upon the latter. This breaking up of the subsoil and mixing manure with it will soon improve it, and when next the garden is trenched, in the course of two or three years, it may be brought to the top.

The Winter Moth.—As the season of the year is approaching when the winter moth will be making its appearance, a few hints by way of reminder to fruit growers may not be out of place. The wingless female moth will be soon making its ascent of the tree to deposit its eggs for the future brood of caterpillars. The best proved method of intercepting the moth is to band the trees with cart grease. Buy none unless guaranteed as free from tar. Numbers of young trees have been killed by injurious compounds sold as grease. Do not use oil in the grease to make it thin. If the daub is stiff it will last the longer. It is important to have it sticky, and look after it and keep it so, otherwise the moth will creep over it. If trees are young and the bark is smooth and tender, some grease-proof paper should be tied next to the bark and the daub placed on the paper. If trees are matured and the bark is rough, good grease will not injure the tree. Trees where grease-proof paper is used will not require so much grease, as the paper prevents the bark from absorbing it. If all the trees were banded with paper it is probable that the saving of the cost of grease would be an equivalent for the cost of paper banding. Grease may be applied with the hand, or a thin flat piece of wood, or a small brush; in either case put on a thick layer of the grease. Grease-banding should not be delayed after the second week in October, and will require attention until the end of November. The appearance of the moth may be known by taking out a light in the dusk of the evening, when the male moths, if any are present, may be seen. If no male moths are seen, you need not trouble to grease-band the trees. Do not be discouraged if, after all your pains, some caterpillars are found; when numerous they are not to be exterminated in one season.

Double Petunias.—If a sufficient quantity of cuttings of the double varieties of Petunia are not already struck, no time should be lost in getting them, to give the young plants time to become established before winter. In selecting the shoots avoid those that have produced flowers, as the wood of these is too hard to strike in a reasonable time. It will be best now to put the cuttings singly into small pots, which should be drained and half filled with a mixture of sifted loam, leaf-mould, and sand, using sand alone on the top. Put them under propagating glasses in intermediate warmth and shade. When well rooted a shelf near the glass in a warm greenhouse temperature is the best place to keep them during the winter. The double varieties are comparatively slow growers, and when large specimens are wanted, plants that have flowered during the present summer should be retained for another year. Cut the shoots close in and encourage new growth before winter. By keeping them a little warmer than the ordinary greenhouse stock, and giving a shift early in spring, these cut-back plants will begin to bloom earlier than the younger ones, and continue to flower all the summer.

The Gladiolus.—The period for harvesting the bulbs is almost upon us, but it is very desirable that they should be well ripened first. As a rule, water has been applied pretty freely during the summer, and this, with the unavoidable treading upon the ground to get amongst the flowers, causes it to be so close and impervious to the air that it is necessary either to fork up the surface or to stir it with a hoe. I have usually lightly forked the ground over, and in a way that it is rather higher where the plants are and lower between the rows; there is no danger of the ground becoming over-dry in October. It will be necessary to dig up the

bulbs towards the end of the month; some of them will be well ripened, others will have the stems and leaves quite green, but nothing is gained by leaving them out longer. Those with quite green leaves I have dug up with a good deal of soil clinging about the roots, and planted them under glass in Cocoanut fibre refuse for a few weeks, thinking that the bulbs would have a chance to ripen gradually, but I found that those treated in this way did not quite so well as those which were cut over as soon as they were out of the ground. When a few bulbs only are grown of each sort they may be put together into a 6-inch or 7-inch flower-pot, with the roots and small bulbs that cluster round the base of the parent bulbs; place them in a dry, airy room or ainery where the Grapes are either ripe or have been cut, as dryness is essential. When they are quite dry remove the spawn or bulbets; these can be placed in dry sand and be wrapped up in paper. The large flowering bulbs may be kept in paper bags without anything being placed with them, but they should be well dried first to prevent mould injuring them. Choose a fine dry day for lifting the bulbs.—T.

GARDENING OF THE WEEK.

FLOWER GARDEN.

AS frost sufficiently severe to injure and destroy the beauty of the tender plants used in the summer embellishment of beds and borders may be expected at any time, preparations should be made for the lifting and storing of those it is intended to winter either for producing spring stock or for planting out again another season by getting ready a general compost of a fairly light nature, placing it under cover, and having boxes, pots, crocks, and labels clean, dry, and in readiness.

GERANIUMS should be stripped of most of their leaves and boxed up thickly. They will supply a quantity of spring cuttings, and old plants usually bloom more freely in the early part of the summer than either autumn or spring-struck cuttings. It will be needless to lift and pot up tender soft-wooded plants, such as *Verbenas*, *Lobelias*, *Alternantheras*, *Iresines*, *Mesembryanthemums*, and similar things, if sufficient cuttings were inserted and rooted as suggested in earlier calendars; but should the probability of a shortage occur, make sure of ample stock by carefully lifting and potting up strong, healthy young plants of whatever there is a doubt about. As

Echeverias, *Kleinias*, &c., will stand a few degrees of frost without much injury, they may be left until later; but if time and labour admit, it is best to lift on a dry day and place in an open, dry shed for safety until they can be attended to. Strip all dead and decaying leaves and suckers off the former and put thickly in dry pits, keeping both plants and soil quite dry through the winter, and protecting from severe frosts. Should pit room be limited *Echeveria secunda glauca* may be safely wintered by stacking against a dry south wall, laying boards or zinc sheets on the top to ward off rain and snow. Mats or other protective material can be laid in front and on the face of this wall of plants whenever severe weather occurs. Thus treated they will pass safely through the winter.

DARLIIAS.—The tops of these will collapse after the first frost, and must be cut down at once, for they emit a most disagreeable smell. Lift the tubers the first dry day and leave on the ground to dry the soil slightly, afterwards storing them in rough leaf-mould and placing in any dry frost-proof structure. Those intended to be left undisturbed in the ground to winter should be left intact, leaving as much of the old top growth as will remain. If cut down water will lodge in the hollow stalks and percolate to the crowns of the tubers, destroying them. Neither should the crowns be buried deeply with leaves, ashes, or anything else. I should certainly advise, at any rate, a few tubers to be left thus for trial if the system is not already carried out, especially in situations where the soil is warm and well drained. We have many here, veritable bushes, that have been in the open ground unprotected and undisturbed for a quarter of a century. The same treatment should be meted out to *Cannas* as suggested.

JOHN ROBERTS.

The Gardens, Tan-y-bwlch, North Wales.

INDOOR GARDEN.

WITH the approach of winter the temperatures of the houses may be gradually reduced to the normal winter temperature. Less damping and syringing will be necessary, although the atmosphere must not be allowed to become dry, or thrips and red spider will soon make their appearance. Maintain a buoyant atmosphere, as far as possible, in the houses. Rather have a little heat in the pipes and the bottom ventilators open than close the ventilators and be without a fire. All tender plants should be in houses or frames by this time.

ZONAL PELARGONIUMS.—Transfer these from the frames to a light position in a house with a moderately dry atmosphere; scrub the pots and remove yellow and dead leaves, and help the plants with a little cow manure or Peruvian Guano. I find the latter one of the best manures for Pelargoniums. Cuttings can still be inserted to obtain plants for flowering next summer.

BULBS IN GLASSES.—It is a very interesting pastime to grow a few Hyacinths and Narcissi in this way. Fill the glasses with soft water, putting in two or three pieces of charcoal to help to keep the water pure. Fill up the glasses as required. Any of the well-known Hyacinths can be grown in this way. Among Narcissi the Chinese Sacred Lily or Joss Flower, a variety of *Polyanthus* Narcissus, is the best. The latter and some of the Daffodils are very pretty grown in ornamental bowls containing nothing but a little water and a few pebbles to support the bulbs when growing. Place in a cellar or cover with a box till the bulbs have made a fair amount of roots; then gradually introduce them to the light, standing them in a position where they will not be affected by draughts or the fire. Roman Hyacinths and Paper White Narcissi potted early should be inspected, and, if well rooted, removed to a cold frame, covering with a mat till the growths become green. If plunged in ashes under cover they will most likely require a good soaking of water.

CINERARIAS are ready for potting on, using a compost of fibrous loam, leaf-mould, cow manure, and a little Thompson's Plant Manure, adding plenty of sand. For early flowering 6-inch pots will be large enough. Larger sizes can be used for the general batch, according to the size of plants desired. They grow best under cool, moist conditions, care being taken not to keep the ball of the plant too wet. Elevate near to the glass to obtain short, sturdy growth.

MISCELLANEOUS.—Pot seedling *Francoas* into 5-inch or 6-inch pots. The older plants may also be given a shift if not done immediately after flowering. *F. sonchifolia*, a pink species, forms a very useful companion to the well-known *F. ramosa* (the Bridal Wreath). Prick off East Lothian Stocks into boxes, or place singly in small pots. *Agathaea celestis* if placed in a house with a temperature of 50° Fahr. will soon be in flower. Roses trained to the roof may have the weak shoots removed and the long growths tied in, cutting off the unripened ends.

Royal Botanic Gardens, Kew.

A. OSBORN.

ORCHIDS.

A LARGE number of *Cattleyas*, *Laelias*, and their hybrids are now finishing their season's growth, and it is advisable to look over them every day, especially when the weather is dull and damp. The grower will probably notice on some plants that the outer sheath which encircles the new pseudo-bulb has become soft and sappy, and the young bulb, clings so tightly to it as to prevent the ingress of air; this has often been the means of rotting the bulb. When this is seen slit open the sheath from top to bottom, keep the plant extra dry at the root for a few days, and also see that the atmospheric moisture is considerably reduced. To prevent other plants being affected afford plenty of air on every favourable opportunity, especially through the top ventilators. It appears that such species as *Cattleya Trianae*, *C. Mendelii*, *C. Mossiae*, *C. dowiana*, *C. gigas*, *C. Eldorado*, *C. intermedia*, *C. Harrisoniae*, *C. amethystoglossa*, and *Laelia elegans* are a trifle more tender, and more easily affected than the numerous hybrids obtained from them. Sometimes on opening the sheath it is found that the bulb has already commenced to turn black. When this occurs the diseased portion should be cut off at once, or the plant may die altogether. If the disease is caused by saturation at the roots, or by too low a temperature, the plant will be in a serious condition, and to prevent further loss a warmer, drier, and more airy atmosphere will be required. All the spring-flowering *Cattleyas*, *Laelias*, &c., that have completed their growth will require less water at the root, affording them all the sunlight possible. *Cattleya bowringiana*, the autumn-flowering *C. labiata*, and others that are sending up their flower-spikes will require sufficient water to keep their roots just moist until the flowers open, when it must be gradually discontinued. Plants of

LAELIA ELEGANS that have recently gone out of bloom may now be repotted, as the new roots which are emitted from the base of the late-flowering growths will at once enter the new compost. When repotting this long-bulbed species it is important that the plant is made thoroughly firm by tying a few of the bulbs to neat strong stakes.

CATTELYAS, such as *C. Mossiae*, *C. Mendelii*, *C. Trianae*, *C. gigas*, *C. lobata*, *C. guttata*, and its variety *Leopoldii*, which have grown too large for their pots, may now be safely repotted. As at this season many of the leading pseudo-bulbs make new roots, I do not advise the wholesale removal of the rooting material, but merely to break the old pot without disturbing the drainage or roots, place the whole in a suitable-sized pot, filling in around the plant with the ordinary Orchid compost. After such repotting afford water very sparingly, merely sprinkling the surface with a fine rose watering-can. It is generally well-known that all *Cattleyas* and *Laelias* are never ready for repotting at the same time. It is only by watching their roots and growths that the cultivator knows the proper time for the work. In the cool intermediate house several of the

BRAZILIAN MILTONIAS, as *M. moreliana*, *M. spectabilis*, *M. Regnellii*, *M. Binotii*, &c., are in flower, and with care will retain their freshness and colour for a considerable length of time. *M. Clowesii* and *M. candida grandiflora* are now sending up their flower-spikes, while *M. cuneata* generally flowers in the spring. After the flowers are cut these plants should be kept rather on the dry side, but

not so dry as to cause the leaves or bulbs to shrivel. While at rest the foliage should be sponged over occasionally, as during this period the leaves are extremely liable to the attacks of red spider. Plants of *Cologne cristata* and its several varieties, that are forming their new bulbs, will take more water at the root now than at any other period of the year. Immediately the bulbs are fully developed the quantity should be gradually discontinued.

Buchford Gardens, Dorking. W. H. WHITE.

ROSE GARDEN.

WITH October commences the rosarian's busy time. He should seize the earliest opportunity for making new beds and for digging and trenching, preparatory to planting at the end of October and early in November. Where new beds are to be made, the existing soil should be thrown out to a depth of 2 feet 6 inches to 3 feet, taking care to place the subsoil by itself. If this excavating were more common, we should see less of the failures in Rose gardens that are so apparent to-day. It may be the soil is a good clayey loam of a greasy nature. If so, so much the better, as we shall need only the addition of manure; but if of a light, hot nature, some soil of a heavier character should, if possible, be mixed with it. The top spit from a meadow that has been well fed by sheep and cows is splendid material for Roses, but not always available. The most successful amateur Rose growers are agreed that a depth of 3 feet of soil is better than 2 feet, but such a depth is not always practicable. After removing the soil add with the subsoil some basic slag, at the rate of 6oz. to 5oz. per square yard. This is a splendid lasting stimulant, and one that should be utilised more frequently by the Rose lover. Before returning the subsoil, make sure there is no water-logging, or some artificial drainage should be adopted. Now return the soil, and with the upper half of the soil admix some well-decayed cow manure, not excessively, because Roses can best be fed by the aid of liquid manures during summer. After the soil has settled down planting may be carried out. I am strongly in favour of

EARLY PLANTING.—Rather than plant during frosty weather I would heel in the plants in a shady spot until April, especially would this be the case with the Tea-scented varieties. In planting Rambler Roses upon pergolas or pillars, and also against walls, good holes must be made for the plants. Some of the grandest pillar Roses I have ever seen were produced in three or four years, owing mainly to the fact that not a barrowful, but a good cart-load of new soil was used for each plant. It is, I know, a simple thing to put on paper what is wanted, but not so easy to procure new soil. Let no one be discouraged on that account. There are few soils that may not be made to grow good Roses if well tilled, and the needs of the Roses provided for when they are able to utilise them, i.e., from early summer right on to autumn. In the

CHOICE OF ROSE SOIL we have to consider more what is best for the stock upon which the Roses are budded than the actual kinds. For instance, it is often stated that Tea Roses prefer grit. But do they? Does not the Briar revel most in a clayey soil of a greasy nature? Let such soil be well broken up by trenching, then plant Tea Roses upon the seedling Briar, and see if they will not astonish you with their rapid growth. I am strongly in favour of transplanting Roses at frequent intervals whenever there is a sign of decadence. It may not be desirable to transplant all the plants in one year, but a record should be kept when the beds are replanted for future reference. Opportunity should be seized at such transplanting to add some half-inch bones or bone-dust as the work proceeds, and the plants will soon show how they appreciate the attention.

Now that we have so many glorious rambling Roses every available spot should be utilised to plant one. Provision should be made for some isolated bushes. Gardeners have not yet realised what grand things Roses are for specimens or they would plant more. For these care is essential in digging well the soil some time before planting.

ROSE CUTTINGS are now being planted as rapidly as possible. All the Rambler Roses, the Penzance Briars, and hosts of others root as readily as Ivy if ripe, solid wood be selected for the cuttings. Get a heel of the old wood if possible with the cutting. Plant the cuttings in good Rose soil; that which was trenched about two years ago. The beds may be quite in the open in full sun. Dig the soil deeply, and set in the cuttings with the base resting on the soil. This may be made certain if the trench is cut down straight, leaving an upright wall of soil against which to lean the cuttings. Now dig up more soil and tread them firmly. We like to put the cuttings in deeply, leaving not more than one bud or eye showing above ground.

KITCHEN GARDEN.

FRENCH BEANS.—Now that the days are getting shorter and the nights colder, some means must be considered in order to prolong the season of these desirable vegetables, and no doubt a great deal can be done in lengthening the season of those now growing on borders by placing cold frames over them and covering them at night with mats, not forgetting to allow them plenty of air during the daytime, even drawing the sashes off altogether when the weather is very propitious, and shutting up the frames early so as to keep in a little warmth. Where frames cannot be spared for this purpose, a skeleton erection can be made with stakes and wooden bars of any kind, so long as it will keep a good covering of mats some inches clear of the foliage of the Beans, to ensure a current of air passing between the Beans and the covering. This, with a light

covering, will do more to keep out cold than a heavy covering close to the Beans.

BEEFROOT in cold localities should now be lifted. Here it remains in the ground for some time yet, and in similarly favoured spots it may remain in the ground a little longer, as undoubtedly the flavour is bound to deteriorate when the roots are lifted. In any case, the greatest care must be taken when handling the roots, as the slightest abrasion will cause them to bleed. They should be stored in a cool shed where frost is excluded, with plenty of sand placed between the roots as they are being stalked to keep them plump and fresh.

SALSIFY AND PARSNIPS are quite safe in the ground until required, unless the ground is needed for another purpose. In that case the roots of the Salsify and Parsnips can be lifted and piled in some out-of-the-way corner. If two narrow trenches are thrown out to the depth of 12 inches, one for the roots of the Salsify and the other for the Parsnips, by packing or carefully building them with plenty of soil between the roots and over them to the depth of several inches, the roots will turn out quite plump and fresh when wanted.

LETTUCES.—Continue to plant out young plants, as they attain the required size for handling, to procure a long and continuous supply during a time when such things are apt to be scarce. In planting Lettuces now, however, some consideration is required as to where they will do best. It is advisable to choose a sheltered border with a southern exposure, and place the plants in beds so that frames can be placed over them when the cold weather arrives. The size of the frames must be considered when the Lettuces are being planted. Late Lettuces grow very well by the base of a wall between fruit trees, if the surface of the soil is stirred up with the digging fork, adding at the same time some fresh material in the way of refuse from the potting bench, or some wood ashes mixed with a few spadefuls of soil from some of the garden plots will answer very well, so long as it is fresh to the young Lettuce plants.

CARROTS.—The main crop of these should now be lifted on some fine day when the ground is nice and dry, then the Carrot roots will come out of the soil quite clean. It is a good plan to grade the roots when storing them.

HERBS.—Like other inhabitants of the garden, these have been growing rapidly since the moist weather set in. Where large supplies of Herbs are required, these may be cut and dried. Tarragon is a Herb that is most appreciated when green, and its season can be greatly prolonged if some clumps are lifted and carefully planted in boxes and placed in some deep frame or cold pit. The same boxes that contain the roots of Tarragon, if introduced into heat early next year, will furnish supplies until it starts into growth outside. A few boxes should also be filled with Mint to be in readiness for forcing next season. A few boxes of Chervil, Sweet Basil, Marjoram, &c., may also be sown and placed in some cool quarters; a cold frame will do at present. Plenty of light and air are the great requisites, sudden chills being prevented by covering at night with mats.

J. JEFFREY.
The Gardens, St. Mary's Isle, Kirkcudbright.

FRUIT GARDEN.

FRUIT TREE PLANTING.—Although it is yet early for the planting of new trees, every opportunity should be taken advantage of in preparing the ground while the weather is favourable. Soils of a light, gravelly nature will benefit by being strengthened with the addition of heavier material, which should be incorporated with the natural soil as the work of trenching proceeds. At the same time add a fair quantity of rich, well-decomposed farmyard manure. Soil of a heavy, retentive nature must be well drained, deeply trenched, and well broken up. Mix plenty of light materials with it. Brick rubble, wood ashes, burnt garden refuse, or anything of a like nature which may be at hand will considerably improve heavy, wet soils. In the case of soils of this nature, planting should be deferred till the new year, when the ground will be in better condition. Intending planters will do well to gather all the information they can as to the best varieties to plant in their particular soil and situation before ordering their trees. Most of our large fruit tree growers give a selected list of the best varieties of all kinds of fruit trees, with their respective seasons of ripening, so that it is a comparatively easy matter for the amateur to have all the very best sorts in his collection. The aim of the grower whose sole object is to make fruit-growing profitable, is to include in his list only the most profitable kinds. It is far better to have a few good reliable varieties than to pride one's self in having an extensive collection, half of which never ought to have been put in commerce. Most of the popular varieties are so well known that it is unnecessary to mention them here. It will be advisable to order the trees early, as very often at the end of the season it is a difficult matter to get good trees of the best kinds. On light soils planting may be done before the new year, so that the stations should be in readiness to receive the trees as soon as they arrive. Delay in planting at this time of year may prejudice good results. Pasture land on which it is intended to plant orchard trees should be trenched from end to end. The ground between the trees should be cropped for the first two or three years in order to break it up thoroughly. A crop of Potatoes is most suitable for this purpose. Afterwards the orchard may be grassed down again.

STRAWBERRY PLANTATIONS.—The soil between the plants should be occasionally disturbed with the hoe; at the same time remove all runners. Old plantations may be improved by watering with diluted liquid manure. Should the weather continue dry for any considerable length of time young plantations must be watered

occasionally. So far this season has been very favourable to the plants in pots, and the most forward are making splendid crowns. These may be given more liberal treatment in regard to feeding with liquid manure and soot water. The pots should be moved occasionally to prevent the roots entering the ground on which they are placed.

E. HARRISS.
Fruit Department, Royal Gardens, Windsor.

THE KITCHEN GARDEN.

SPINACH THE CARTER.

FOR some years our best Spinach was The Victoria, which is a round-leaved variety, but the newer introduction—The Carter—has overshadowed the earlier form. For many years the only Spinach supposed to stand our variable winters was the Prickly or Winter Spinach, and it is surprising how loth gardeners are to break away from old traditions. The Prickly Spinach early in the year bolted and left a blank long before the spring-sown was ready. Another point often overlooked is that winter Spinach forces more readily. There is no occasion to force if it can be avoided, but at times, after a hard winter, the Spinach fails, and seed sown in heat in pots or boxes, and especially a rapid grower like The Carter, will give a supply a month in advance of the first sowing in the open. My note more concerns the plants sown in the open at this date and the value of a round-leaved Spinach over the older sort, but, no matter what kind is sown, there must be good culture. Few plants suffer more from slugs, snails, and other pests than winter Spinach. The plant grows well at the start when sown in deeply-dug and well-manured land, and it should be well dressed with fresh lime and soot. With regard to the date for sowing, much depends upon soils and situation. We sow early in September for the supply named, but a special point is made in sowing thinly to secure a sturdy plant. Spinach sown like Mustard and Cress cannot stand our cold north-easters. The plants after a spell of frost soon collapse. The best plants were those sown in soil that only had lime and soot. It was well prepared for a previous crop, and, though the growth was less robust at the start, by using fertilisers in February or March the plants responded quickly and gave a very heavy return. The Carter Spinach has a large and succulent leaf, and it requires more room. A space of 2 feet between the rows is none too much, and at least 9 inches between the plants when the final thinning is completed. Many good growers thin more sparingly at the start, and later on remove the plants as the space is required. This done, there is no waste, as the thinnings are used. Some advise sowing on a sheltered border; others in an open position. I think the latter place is the more suitable, as by exposure the plant is hardened. Why I so strongly advise the new variety is on account of its free growth and hardiness.

G. WYTHES.

A GOOD LATE PEA.

IN soils that are suitable for late Peas a trial should be given to Carter's Michaelmas. I do not know of any late variety that yields better and is of such good quality. In the Northern part of the kingdom we had no difficulty in gathering good dishes in November, and the plant continues to yield till cut down by severe frost. The haulm appears to be of a firmer character than others, the leaf is strong, and the plant branches out freely into side growths; a later or continuous growth is made, and the blossom sets very late. There are few late varieties that have such a good constitution at that season, and owing to this cause the plant does not get mildew readily. The growth of the haulm is about 2½ feet, the pods are a deep green, large, and well filled. Few varieties are better able to resist drought; many late Peas fail in dry

seasons. If sown in June there is no difficulty in having good pods at the season named, October, or later; even now, when we have so many good Peas to select from, the Michaelmas stands out prominently on account of its free growth and long cropping at a season when good Peas are by no means plentiful. G. WYTHES.

WEBB'S WONDERFUL LETTUCE.

THIS Lettuce is one of the very best Cabbage varieties in cultivation. Much has been written of late respecting Lettuce, but I have seen no mention of this variety, much to my surprise. It grows to an enormous size, and often weighs 6lb. or 7lb., and it is exceptionally crisp, juicy, and sweet. Its quality, to my mind, is unequalled, the larger it is the better, and it remains in good condition for such a long time before bolting, hence its usefulness as a summer variety; it is worthy of a good trial.

J. S. HIGGINS.

Rdg Gardens, Corwen, North Wales.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 30, Tavistock Street, Covent Garden, W.C. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

Legal Points.—We are prepared to answer questions of law which have anything to do with the subject of gardening and forestry. The questions should be as clear and explicit as possible, so that there can be no doubt as to the point of the question. Answers will be found in a separate column headed "Legal Points."

SEAKALE (Bebington).—The treatment of Seakale varies. If forced in the open ground, where the plants have made thin growth, the plants are covered over with large pans, pots, or barrels, and over this is a good body of warm litter. This is placed according to the time the new growth is required. If in March, cover early in January; if earlier, cover in November. You do not say if you have growing plants or what yours are like. The nurserymen sell forcing roots, and these are forced as follows: The roots are trimmed—that is, all side roots are cleared away—the strongest saved for next season's planting. Those large enough for forcing are then placed in the dark in a Mushroom house or any dark place with a temperature of 55°, and in from three to four weeks the new or blanched growth is large enough to cut. Very little moisture is needful, as there is sufficient sap in the roots to start the growth. Too much moisture will cause new growth to damp. The roots lifted in this way may be planted out in April, and will grow again, but it is far better to rely upon young roots. These are easily got by cutting the strong side roots in the autumn about 6 inches long, placing close together in soil till April, then planting out in rich soil 2 feet apart between the rows, half that distance between the plants, but for forcing the next season the land must be well manured and kept clean during growth. Roots forced where grown with manure last for years, but we advise a new plantation every three or four years, also to give new land if possible. In forcing for late use, manure for heating is not required, only soil to cover a good depth to keep

quite dark, as light causes the new leaf-growth to green quickly, and this should be as white as possible. Few vegetables are more simply grown and give a better return. You can also buy planting roots in the spring very cheaply from a large nursery.

LAMP OR STOVE FOR HEATING GREENHOUSE (S. B. C.).—It is probable that being so far north your small greenhouse may have to endure severer cold than is the case in the south, hence you find an oil stove with pipes and water a miserable failure. These small stoves and heating contrivances are at the best but poor substitutes for a proper furnace and coke fire to heat hot-water pipes. You may do better to obtain a couple of Rippingale's round oil-stoves, having in them as burners two 3-inch wicks. The tops are movable, and should be removed, being replaced with tin dishes in which some water to evaporate should be placed. These oil stoves give off quite a nice warmth, but the very best oil only should be burned in them, as cheap oil creates smoke and nauseous fumes. Well trimmed they burn admirably for twelve hours or longer. These stoves should be elevated some 2 feet or 3 feet from the floor. The house outside should be partly covered with mats also.

PERPETUAL - FLOWERING CLIMBING ROSES (Sun).—Five feet is not at all a great height for Roses to climb. Even some of the Hybrid Perpetual Roses, such as Ulrich Brunner, Ella Gordon, &c., would soon attain the height of 5 feet. But as you require sorts which hold their foliage, you could not plant a better variety than Grüss an Teplitz. Lady Gay would be equally as rampant as Dorothy Perkins. They are delightful Roses for covering fences, and their foliage is perfectly charming, but the autumn blossoms are very sparsely produced. Your best plan would be to plant Grüss an Teplitz for one, and select the other four from Mme. Alfred Carrière, Longworth Rambler, Alistair Stella Gray, Pink Rover, Aimée Vibert, Climbing Belle Siebrecht, and Conrad F. Meyer. If you have space to plant them all do so, for they are all worth it. We think a white and red alternately would look well, if so, plant with Grüss an Teplitz either Aimée Vibert or Alistair Stella Gray.

HYDRANGEA (R. A. Tennant).—The name of the enclosed specimen is *Hydrangea petiolaris*, introduced from Japan many years since. In a native state it mounts up the trunks of forest trees to a height of 70 feet to 80 feet, and then forms large, branching masses. It is nearly related to the Himalayan *H. altissima*, but the leaves of this last are more ovate, while it is less hardy than *H. petiolaris*. We consider *H. petiolaris* a beautiful climber, and interesting from the fact that in growth it is so dissimilar from the other *Hydrangeas* generally cultivated. At Kew there is a fine mass, probably 12 feet in diameter, rambling over some old tree stumps, and this in a spot fully exposed to the sun is soon after midsummer freely studded with large corymbs of blossoms. On the other hand, a specimen clothing a space of quite 10 feet in height and width, trained to the north side of the herbaceous ground wall, and consequently in the shade, is equally floriferous. We have also met with it in just as satisfactory a state on a south wall. We should certainly not advise you to do away with your plant, feeling sure that when it flowers you will not regret keeping it.

LILY OF THE VALLEY AT CHRISTMAS (Bebington).—The best way to get Lily of the Valley in flower at Christmas is to obtain what are known as retarded crowns—that is to say, those which in the ordinary course of events would have flowered during the preceding spring, but were kept frozen in order to prevent their starting into growth. Of these a dozen crowns may be put in a pot 5 inches in diameter. The soil must be pressed down firmly, and the point of the crown be above the surface. They must then be well

watered and placed in an ordinary greenhouse for a few days, being at that time shaded from the light. After this place in a temperature of 55° to 65°, and keep them partially shaded till the earliest buds are on the point of opening. They will flower in about twenty-one days from being taken into the warmer structure, but it is a good plan at the Christmas season to allow about a week longer, as a spell of dull, cold weather may retard matters, and when expanded they keep fresh for some time. For Tulips to flower at Christmas the Duc Van Thol varieties are the best. The earliest of all is that whose flowers are red, edged with yellow, which has been long employed for early forcing, but there are now in addition crimson, scarlet, rose, white, and yellow forms. These Tulips should be potted six or seven in a 5-inch pot, or put in shallow boxes at such a depth that the top of the bulb is just visible. Then they must be placed out of doors, given a good watering, and covered with Cocoanut refuse in order to ensure a uniform state of moisture and encourage the formation of roots. About a month before they are required to bloom the pots must be lifted from their plunging material and taken into a house kept at a temperature of 55° to 65°, a fairly moist atmosphere being also maintained. Should they be inclined to start too slowly, more heat may be given, a little bottom-heat in this case being an advantage. As their development depends upon the weather and other matters, a sharp look-out must be kept to give a little more heat if you consider it necessary and a corresponding drop, but not too great a one if, in your opinion, they are coming on too fast. No hard and fast rule can be advocated.

WILLOWS, &c. (M. S. H. X.).—(1) Willows are pollarded for the supply of osiers for basket-making, the cutting-back causing them to produce long growths of medium thickness suitable for working into baskets or other articles, but this work is a branch apart from ordinary gardening, and certain specially suitable Willows are grown for this purpose. By the sides of streams or ponds Willows are pollarded, as a rule, either because they are getting too large for their position, or because the tops are beginning to decay, and are therefore unsafe to leave. We should advise you to leave your Willows alone, as, from what you say, they form a pleasing feature in your landscape, and if they are in good health, with no dead wood in the tops, it would be a pity to spoil the view and the trees at the same time by cutting them about. (2) The best time for planting Laurels is from the middle of October to the end of November, or if not convenient then they could be planted with safety in February or March. The best Laurel for forming a hedge is Bertini, or latifolia as it is sometimes called, though caucasica and rotundifolia are also good, but for a hedge 8 feet high we should recommend the first. The common Laurel is not half so good as its varieties. The Portugal Laurel forms a good hedge, and we can recommend it equally with Bertini's Laurel. Instead of Laurels you could plant Yews or Hollies, though these are rather expensive, or Cupressus lawsoniana, C. nootkatensis, Thuya Lobbi, and T. occidentalis (Arbor-vitæ) could be used. These can all be obtained at a moderate price. Oval-leaved Privet makes a good hedge, and is cheap, but we should not care to recommend it for a hedge more than 5 feet or 6 feet high. The Laurels mentioned above can be obtained of almost any height up to 6 feet or so, and are not very expensive.

SHOW CARNATIONS (Bristol).—We consider these to be the best: *Sels*—Agnes Sorrel, crimson; Trojan, white; Daffodil, yellow; Duke of Norfolk, scarlet; Grey Friar, heliotrope; and Lady Hermoine, pink. *Fancies*—King Solomon, Falca, Lara, Chas. Martel, Molly Maguire, and Ormonde. *Yellow ground Picotees*—Childe Harold, Lord Napier, Mrs. Walter Heriot, Annot Lyle, Dalkeith, and Lucy Glitters.

ROSE ALISTER STELLA GRAY (*G. T.*).—The variety sent is *Alister Stella Gray*. It is a beautiful free-flowering Rose, blooming early and also late in the year. It yields exquisite bunches of buds and blossoms of a chrome yellow colour, buds very small but pretty. It was sent out by Messrs. Paul and Son about ten years ago, and was raised by Mr. Hill Gray from seed sent over from the Canary Islands. You could strike it from cuttings very well if you put these in at once with a heel. Place these in sandy soil in a cold frame, and keep them there until the ends of the shoots that are in the soil are "callused" over. When this occurs remove the pots to a house or frame where bottom-heat can be afforded to induce rooting. This is not a very rapid grower, certainly not like *Rêve d'Or* and such-like, but its autumn blooming makes it very useful on that account.

CHRYSANTHEMUM DISEASED (*M. S. S.*).—The leaves you send are attacked by the rust, a fungoid growth that develops between the membranes of the leaves; ultimately it bursts and scatters its copper-coloured spores, and these are what are seen upon the leaves you send. This is, perhaps, the most destructive disease that attacks the *Chrysanthemum*. Sometimes the dark brown spore masses are so numerous as almost entirely to cover the undersides of the leaves. Your plants are evidently badly attacked. As soon as the rust is seen the plants should be sprayed with a solution of sulphide of potassium—dissolve 1oz. of sulphide of potassium (liver of sulphur) in a quart of hot water, and dilute it with 2½ gallons of water—every ten or fourteen days until the disease entirely disappears. It is important that the diseased plants should be isolated, and that all the affected leaves should be picked off.

ABOUT ROSES (*W. J. C.*).—In the list we gave all will not come up to the standard of *G. Nabonnand* and *Peace*, but they are certainly worth adding. *Mme. Reve de St. Marceau* is indeed a lovely Rose, but in our opinion it is not superior to *Souvenir de Catherine Guillot*. *Annie Marie Souper* is a good Rose, and may prove useful, but we have not found it very distinct as it approaches too near *Marquise Litta*. *Killarney* is, unfortunately, terribly addicted to mildew, so much so that we fear it will in time have to be supplanted, although so very lovely in the flower. As to certain varieties succeeding better in some localities than others, it may be that a change of stocks is responsible. For instance, we know of a noted grower who is able to grow *Ulster* to perfection on the *Manetti* stock, whereas on the *Briar* it is a failure with him. As for catalogue description, with the true rosarian, he cares not who is the raiser provided a really good variety is obtained, and most of the well known and established firms may be relied upon for a just description of such Roses as they catalogue.

BOG PLANTS (*Lady Trevor*).—There are numberless plants with which a damp stream bank in partial or almost complete shade may be beautified, provided that they have soil to their liking. The *Moccasin Flower* (*Cypripedium spectabile*) is often very beautiful in such a site in peaty soil, as are other terrestrial Orchids, such as *C. parviflorum*, *C. Calceolus*, *C. pubescens*, *C. acaule*, *C. montanum*, and others. The Wood Lily (*Trillium grandiflorum*) also thrives under similar conditions and in like soil, as does the scarlet *Lobelia cardinalis*, whose home is in the wooded bogs of America. The Canadian Blood-root (*Sanguinaria canadensis*) grows in its native land by the stream-side, where it spreads a sheet of white. The Swamp Lilies (*L. pardalinum*, *L. superbum*, and *L. canadense*) are usually found at their best by streams in their American home, and should do well if the ground is kept cleared around them. Other flowering plants that should succeed are the Marsh Marigold (*Caltha palustris*) the tall *Primula japonica*, often growing to a height of 4 feet, and the dwarf *Primula rosea*, with its head in the sun and its feet in the water, *Golden Rod*, *Loosestrife*, *Day Lilies*, the pretty

creeping *Forget-me-not*, *Omphalodes verna*, *Claytonia sibirica*, *Globe Flowers*, *Trollius*, the best of which is *Orange Globe*, *German* and *Japanese Iris*. Where these are planted care should be taken to keep them clear from coarse vegetation, which will soon smother them if allowed to grow unrestrained. If this is thoughtfully done no trace of man's handiwork need mar the sylvan beauty of the scene. Of foliage plants there are the noble *Gunnera manicata*, which may be too large, as its leaves often measure 8 feet across, the handsome *Saxifraga peltata*, *Rodgersia podophylla*, with its deeply cut bronzed leaves and ivory white flower-spikes, and the graceful *Cyperus longus* by the water-side. Many exotic Ferns should flourish, such as the *Ostrich Fern*, *Struthiopteris germanica*, the Canadian *Maidenhair*, *Adiantum pedatum*, *Oncoclea sensibilis*, *Lomaria magellanica*, and others; while in our home woods many lovely species are to be found that would find a congenial home beside the shadowed streamlet.

ROMNEYA COULTERI (*E. R. B.*).—This suffers greatly from the caterpillar plague. In some gardens, fortunately, the pest is absent, but we have seen plants badly damaged from this cause in many counties, and in numbers of cases the buds have been so injured that not a single perfect flower has expanded on large bushes. Hand-picking is the best remedy, and this should be effected at night with the aid of a strong lantern, when the caterpillars may be easily detected at work. Daylight search is useless. It is also a good thing to give weekly syringing with quassia chips solution, this rendering the foliage and buds bitter to the taste and to a certain extent checking the ravages of the caterpillars; 1lb. of quassia chips should be soaked in a gallon of water for two or three hours, then heated till it boils; it should then simmer for at least twelve hours, when it should be strained and 10oz. of the best soft soap added, and the whole well stirred up. Before using this should be mixed with ten gallons of water and then well syringed on to the plant. However, even after the syringing, nightly visitations with the lantern are necessary, for the caterpillars, being established on the bush, are loth to depart even though their food is bitter, though if the syringing is vigorous many will be washed to the ground and seek other pastures. You should certainly root-prune your *Medlar* tree. If the boughs of the *Fig* tree are in the way they should be sawn off close to the trunk. This will do the tree no harm, and should not affect its bearing, being a very different thing from the mistaken practice so often followed of shortening back the small branches, which only leads to the production of numberless small shoots at the expense of fruit. If one or two branches are bodily cut away and the remainder are left in their entirety the fruit crop should not suffer. This is the only correct way of pruning *Figs*.

ROCK WALL OF SANDSTONE (Will our correspondent please send name and address, which have been lost, that we can return the plan).—(1) For the height named we think the 2-inch thick joints much too large, unless the sandstone blocks are of good size. We are not sure whether the wall is against the tool-house or standing alone, as unless there is a sort of retaining bank you will have to exercise care in building the wall. Sandstone is excellent in every way, not merely for a rockery wall, but for the plants, by affording depth, space, and that rugged surface so desirable to secure good results. If possible you should give the wall a slight batter, as by this and the "set-back" principle of wall building the moisture is retained and conducted to the roots of the plants. By introducing small plants well rooted these may be inserted quite well when the wall is completed. *Aubrietias*, double white *Arabis*, *Alyssum saxatile*, *Saponaria ocymoides splendens*, *Phlox setacea* *The Bride*, *Campanula muralis*, and *Cerastium* are trailing subjects, and the lowest would require at least

2 feet clear of the ground. *Wallflowers* and *Antirrhinums* may be sown on the wall-top, or near, as they grow erect. Many *Sedums* are good, while the *Cobweb Sempervivums* would delight the eye if colonised freely on the ledges of the stones. (2) *Roses Aglaia*, *Thalia*, *Mme. Berard*, *Gloire de Dijon*, *The Dawson*, *Reine Olga de Wurtemberg*, and *Caroline Pillar* are all good. For wall, *Aimée Vibert*, *Climbing La France*, *Climbing Captain Christy*, *Cheshunt Hybrid*, and *W. A. Richardson*. The following *Lilies* would be suitable: *L. tigrinum Fortunei*, *L. t. fl.-pl.*, *L. speciosum rubrum*, *L. s. Melpomene*, and *L. s. Kratzeri*. Plant about 6 inches deep, and some half-dozen bulbs in each position. (3) A solid greenhouse stage is best, and whether it be of slate or iron matters little if the material is covered with fine cinder or coke ash to conserve the moisture about the pot plants stood thereon. (4) Climbing plants for greenhouse: For the walls, *Asparagus Fern* (*Nana* variety) and *Clematis indivisa*. For the roof rafters, *Rose Niphetos*, *Fuchsia Lord Roberts*, and *Asparagus plumosa*. The other plants are, we think, too large for the building. (5) *Dark Roses* are *Prince Camille de Rohan*, *Prince Arthur*, *Xavier Olibo*, *Emperor de Maroc*, *Star of Waltham*, *T. B. Haywood*, *Grand Mogul*, &c.

POPLARS (*Miss Empson*).—The Lombardy Poplar is of quick growth, and as you suggest its use as a screen it is evident you do not regard its extreme fastigate habit as too pronounced for the purpose. One of the most useful screen trees we know, and of exceedingly rapid growth, is the Canadian Poplar (*Populus canadensis*) of gardens and nurseries, but which in the "Kew Hand List" is considered synonymous with *Populus deltoides*. It is, however, of a fairly spreading habit of growth, though by judicious pruning this may be to a certain extent neutralised; indeed, it bears cutting well, and may at any time be kept within reasonable bounds. We are afraid that there are no evergreens of sufficiently rapid growth to suit your purpose, particularly as you object to *Cupressus macrocarpa*. The *Hemlock Spruce* succeeds best in elevated, airy situations, where the soil is fairly retentive of moisture, while it also does well by the side of streams. It would scarcely succeed under the conditions you name, still, as it is so beautiful, and, furthermore, cheap, there will be no harm in trying. The *Cryptomeria* succeeds best in a deep, well-drained soil, though if too dry at the roots the foliage is apt to get thin. The average yearly growth of a thriving specimen will be about 18 inches. Good trees of it may be met with in this country from 50 feet to 70 feet in height, while a stem girth of 5 feet has been recorded.

BELLADONNA LILY (*Rebecca*).—The best time of the year to transplant the *Belladonna Lily* is in the month of June, the bulbs are then dormant. The *Belladonna* very much resents disturbance at the roots. Planting should be done as thoroughly as possible, and a good depth of soil must be ensured them. A narrow border under a south wall is one of the best of places for them, and it should be dug to a depth of 3 feet. Failing this depth of soil the ground may be excavated to this extent, then put in the bottom a layer of brick rubble and broken crocks for drainage purposes. Six inches of this will suffice, then about 18 inches of soil, made up of good turfy loam of a rather stiff nature, leaf-mould, well-decayed cow manure, rough sand (even the finer parts of brick rubble may be used), and the whole well incorporated together. This must be trodden down moderately firm, and all is then ready for planting the bulbs. The new compost, as above recommended, will, when finished, be a foot below the surrounding soil, and on this the bulbs should be placed, and the remaining foot made up with the mixed compost above referred to. Taking the height of a bulb at 6 inches it will, when the bed is made up, be covered with 6 inches of soil above its crown.

MILDEW ON ROSES (*A Subscriber and Reader*).—Syringe your Crimson Rambler Rose with potassium sulphide, which may be made as follows: Dissolve 1oz of sulphide of potassium (liver of sulphur) in a quart of hot water, and dilute it with $2\frac{1}{2}$ gallons of water. Syringe the affected shoots well, repeating the application on two successive days. You should cut off the leaves that are very badly affected. It will do no harm to the plant to remove a few, and will certainly help to prevent the mildew from spreading. Burn the leaves, do not throw them on the rubbish heap.

PEACHES FOR MARKET (*Lancs.*).—You cannot do better than try some of the following, all of which are good varieties, for market culture. They are placed in the order of ripening:—*Very early*: Amsden June, Duchess of York, Alexander, Condor, and Abec. *Early*: Dr. Hogg, Crimson Galande, Royal George, Dymond, Goshawk, and Large Early Mignonne. *Late*: Late Devonian, Princess of Wales, Prince of Wales, Exquisite, Barrington, Sea Eagle, and Gladstone. Of Nectarines the best are:—*Very Early*: Cardinal, Early Rivers', Rivers' Early Orange, and Elruge. *Early*: Lord Napier, Stanwick Elruge, and Elruge. *Late*: Pine-apple, Spenser, and Victoria. If you only want a few, of early Peaches we should recommend Crimson Galande, Large Early Mignonne, Goshawk, and Royal George, and of late sorts Princess of Wales, Late Devonian, and Sea Eagle. Cardinal and Early Rivers' for early Nectarines, and Spenser for late.

CRIMSON RAMBLER AS A POT PLANT (*A. K. M.*).—The two year old plants which you have of this Rose, and which are now some 4 feet to 6 feet long, would provide you with fine material to pot up this autumn. The end of October will be early enough to lift the plants, but in the meantime you could remove at once a foot or so from the ends of the long shoots to enable them to ripen better. When you dig up the plants for potting, cut the shoots back to about 12 inches to 16 inches from the base of the plant, and shorten the roots a little. Pot firmly in good Rose soil, consisting of two parts good loam of a fibrous nature, one part well-decayed manure, and a little bone-meal, all well mixed together. The size of the pots should be about 7 inches in diameter. It will be best to keep the plants outdoors for a few weeks, providing there be no frosts, and then transfer to a cold pit, or anywhere away from frost. Do not bring them into the greenhouse until the end of the year. When you do transfer the plants to your greenhouse it would be well if you could plunge the pots in some leaves, which would provide a gentle bottom-heat, or failing this a frame placed over the hot-water pipes and filled with Coconut fibre would give the bottom-heat. Only a very gentle bottom-heat is needed to start the roots into action. The cooler the top atmosphere the better, providing there be no cold draughts.

GRAPES SPOILT (*H. Churchman*).—You are doing quite wrong in keeping the house closed night and day, and especially when the Grapes are ripening. It is then that most air is needed. Even if the weather is dull you should give some air, and increase the heat in the hot-water pipes so as to prevent the temperature falling too low. The leaves sent are scorched; they have been damaged by the hot sun shining upon them when moist. If you had admitted air to the house properly this would not have happened. When Grapes are ripening you should leave a little air on the house all night. We are afraid you cannot do very much to clean the leaves until you have ripened and gathered the fruit. They must have plenty of air on all favourable days, a fairly dry atmosphere, and a little heat in the hot-water pipes. When the Grapes are cut you might, by holding them under a running tap, wash some of the mealy bug out of them. It must be done carefully or you will spoil their appearance. Give the vines plenty of water, and

once a week at least give liquid-manure water. You may have overcropped. This tends to prevent the Grapes colouring well. As soon as the fruit is gathered you must take off the roof lights, if possible, or, if not, keep the ventilators open night and day so as to ripen the wood thoroughly. Then by fumigating with XL All Vaporiser (closing the house for the time being, of course), and syringing with some good insecticide several times, try and get rid of the mealy bug which infests them. In the spring, before the buds burst, fumigate again with XL All, and keep a sharp look-out for bug. Use a brush dipped in methylated spirit to kill every one seen. It is all-important to prevent this pest increasing in the spring. Vines need a lot of air, plenty of water, and some liquid and artificial manure during summer and autumn.

BULBS, &c., UNDER CHESTNUT TREES (*Charles Prentis*).—The shade of Horse Chestnut trees is much too dense for all but a few kinds of bulbs. One of the best for this purpose is the common Bluebell (*Scilla nutans*), which is one of the few things capable of thriving in this position. To give variety one might also plant the red, white, and blue forms of *S. campanulata*, which have larger, bell-shaped flowers. It would give the bulbs a much better chance if the ground under the tree was dug as deeply as possible without injuring the roots, and at the same time working in as much fresh good soil as is wanted. Other bulbs which might be tried with advantage are the old double Daffodil and some of the other stronger-growing kinds. The dwarfier kinds would not be suitable for such a position. Cyclamen neapolitanum, the autumn-flowering species, and *C. coum* and *C. ibericum*, which flower in the spring, might also be tried on the outer edge, along with *Anemone hepatica* with its pink, white, and blue varieties. To give the place a furnished appearance some of the stronger-growing native Ferns might be used, such as the Male Fern, Shield Fern, and the Lady Fern.

CABBAGE MAGGOT-EATEN (*North Country*).—The small maggots, or caterpillars, which have so largely eaten your Cabbages are doubtless the larvæ of the Cabbage moth. Destroying them is a matter of great difficulty, not only because they feed on the under sides of the leaves, but also because the application of any remedy to destroy the insects would render the Cabbages dangerous to consume. If it is possible to catch and destroy the moths in the summer before they deposit their eggs on the plants, some good is done, but that is, we fear, almost an impossibility. The only safe solution to use is one of rather strong salt water, as whilst destructive to the insects it does not injure the Cabbages. The Cowslip is a wild species of the Primula family. The Polyanthus is not a species, but a garden variety, produced in the past years by intercrossing possibly the Cowslip and Oxlip.

HEATHER, &c. (*C. M. Wright*).—(1) Heather will not grow under Beech trees, nor, in fact, will anything else, as, in addition to the dense shade, the Beech is a surface-rooting tree, and therefore robs any plants beneath it in two ways. If Heather grows freely in the woods near you, we should certainly advise you to plant it in the less shady parts of your shrubbery. Simple digging of the ground will be sufficient preparation, and the Heather should be cut out in small square turves and planted rather thickly. Care should be taken to choose young Heather, or, at least, some where plenty of young growth is showing. The older stems should be cut right to the ground the first spring after planting to allow the young growths to come up strongly. This may mean the loss of a season's flower, though not certainly, but you will find the benefit later on in stronger and better plants. You would have to cut away some of the lower branches of the shrubs to allow the Heather to get a start. You could not plant the Heather at a better time than the present. (2) For planting in tubs during the winter to stand in the open

you require evergreens, some, or all, of which should be brightly coloured. There are two different shapes of plants to choose from, viz., standards and pyramids. Both can be recommended, the choice depending upon taste, but in choosing standards you must remember to add the height of the tub to the height of the plant, or you will find that a tree which looks exactly right when in the ground is far too tall and shows too much bare stem when put in a tub. The following can be recommended: Standards—Hollies, both green and golden; Yews in green and golden; Portugal Laurels, Box, and Bays, green. Pyramids—Hollies and Yews in green and golden; Cupressus and Retinosporas in green, golden, and variegated; Box in green, golden, and silver; narrow-leaved Portugal Laurels, &c. We should advise you to visit a nursery and choose your plants, as most nurserymen keep plants prepared for putting in tubs.

HYDRANGEAS (*Sophonisba*).—It is a difficult matter to assign any reason for the behaviour of your Hydrangeas, as, judging by your description of treatment given and general surroundings, they ought to flower well. One idea suggests itself, and that is whether anything happened during the last winter or early spring to injure the terminal buds, as the Hydrangea flowers naturally from the large buds formed in the late summer of the preceding year, and which are conspicuous by reason of their plumpness during the winter, when the plant is devoid of foliage. It is now too late to do much in the matter, but early in the spring, before growth recommences, any old and exhausted shoots which you feel sure will not flower may be cut out, thus imparting more energy into the younger and vigorous ones. The Hydrangea is a liberal feeder, hence the soil used in the pots or tubs should be good. If the pots or tubs are well furnished with roots, a little weak manure occasionally during the growing season will be beneficial. As mentioned by you, the Agapanthus flowers best when the pots or tubs are full of roots, but throughout the growing season a fortnightly dose of liquid manure will be beneficial.

MANURING A VEGETABLE GARDEN (*B. T.*).—We presume by our correspondent's enquiry that the results of using stable manure have not been quite satisfactory. This, if it is so, is probably not the fault of the manure, especially in the case of light land, as no form of manure that we know of results in better returns from such lands than does that of organic manure from stable yards or cow sheds. There is no other one manure that holds in the same proportions all the elements necessary to the full development of vegetable life as farmyard manure. Our London and other market gardeners have long since found that out. Many of them add this sort of manure to their land annually, at the rate of upwards of 100 tons to the acre. We would advise our correspondent to give this form of manure another trial on a liberal scale this autumn, combined with bastard trenching, and forking into the same land in spring a dressing of quicklime at the rate of two tons per acre, as this sets the ammonia in the manure free. In the successful and economical use of artificial manures in the growth of garden crops nearly every crop requires separate treatment. For instance, in the growth of the Brassica tribe, such as Cabbages, Brussels Sprouts, and Cauliflowers, the best mixture you can have is the following: $2\frac{1}{2}$ lb. of superphosphate of lime, $2\frac{1}{2}$ lb. kainit, $1\frac{1}{2}$ lb. sulphate of ammonia, and 1 lb. sulphate of soda, mixed together, and applied when digging at the above rate to one rod or perch of land. For Potatoes, per rod, the following is the best: 7 lb. superphosphate of lime, $3\frac{1}{2}$ lb. nitrate of soda, $3\frac{1}{2}$ lb. kainit. For Peas, the following per rod: 9 lb. superphosphate of lime, 5 lb. nitrate of soda, 2 lb. of kainit; Beans the same as Peas. For Onions, per rod: 1 lb. of nitrate of soda, $\frac{1}{2}$ lb. guano, $\frac{1}{2}$ lb. of kainit, and $\frac{1}{2}$ lb. sulphate of iron. For Strawberries, as a spring dressing, per rod: 6 lb. guano and 2 lb. kainit.

PERENNIALS (*Subscriber*).—If your border or bed where you intend planting your Hollyhocks has been prepared for them by thorough digging and manuring, by all means plant now. Autumn planting is preferable to spring planting, and especially early autumn planting. If you can plant now it will be much better than waiting until spring; but if you delay the work until, say, December, then we should advise waiting until spring. The soil is still warm, and plants put in now will quickly become established, and will have taken a firm root hold before the winter. In spring they will start into vigorous growth, and make finer plants than those not planted until spring time. The other perennials may be left in the sheltered part of the kitchen garden during winter.

ORCHARD TREES (*Belington*).—You should protect your Apple trees by 1-inch wire netting, by boughs tied round the tree, or if ever you turn in horses or cattle, by cradles sufficiently high to keep off the latter. The cradles are made either square or triangular. Have the upright stakes $1\frac{1}{2}$ feet to 2 feet apart at the base, and from 3 feet to $3\frac{1}{2}$ feet apart at the top, with cross staves about 1 foot apart. You will find that 1-inch mesh wire netting if securely fastened round the trees will keep the sheep from injuring the bark. October is a good month in which to plant Plums. Fruit trees are all the better for early planting. An excellent guide is to plant them while some leaves still remain on the shoots. One dozen good sorts for wall culture are Green Gage, Denniston's Superb, Oallin's Golden Gage, Comte d'Atthems' Gage, Golden Transparent, Jefferson, Coe's Golden Drop, Reine Claude de Bavay, Transparent Late Gage, and Kirke's, all dessert Plums of various colours. Pond's Seedling, Archduke, and Prince Englebert are cooking sorts.

HEATING SMALL GREENHOUSE (*Beginner, Bristol*).—In providing a heating force for a greenhouse, so much depends on its position. A lean-to house against a south wall presents much less of cold surface to the air than does a span-roof house standing in a somewhat exposed position. But any house can have its heat, if it be ever so moderate, greatly protected if mats or stout canvas be hung round the glass sides and over a portion of the roof at night, or when very cold winds prevail. Your proposal is good, but still it must be well protected by a small shed. No gases or air from the furnace or heating power should be allowed to enter the house. The heat should be furnished solely by the hot water coursing through the pipes, and whether you burn gas or oil the amount of heat in the pipes will depend on the dimensions of your flame or burner. Certainly at only 2s. per 1,000 feet we should prefer gas. Two-inch piping is small, and you will need two rows of piping along each side of the house, not too low down, where the heat is lost or buried beneath shelves, as the danger of frost always comes from the glass roof, and not from the floor, as so many who fix hot-water pipes seem to think.

PEACHES SOUR (*Ernest Moon*).—It may be one of the reasons you name that causes your Peaches to be sour. It is difficult to say without knowing something of the conditions under which they are grown. You may have poor varieties, if so no amount of good culture will impart a sweet flavour to them. An important factor in getting good flavour in Peaches is to give plenty of air while they are colouring and ripening. Air should even be given during that period if the weather is unfavourable, the temperature must be maintained or the damp expelled by having a little heat in the pipes. Unless plenty of fresh air is given the fruits will not be luscious and sugary as a Peach should be. It is easy to give air in plenty without causing draughts, and it may be done even in dull, damp weather when you have a heated house. Possibly the roots of the trees have got into a sour subsoil, or the

border may need draining. If such is the case, and the trees have had a good deal of manure, the want of flavour might be thus accounted for. We should advise you to have the border renovated in the autumn, giving fresh drainage if necessary, and adding new turfy soil. Make sure, however, that the varieties you have are good ones. If you can send fruits we will name them for you.

NAMES OF PLANTS.—*G. E.*—Rose Baile de Neige.—*Seaside* Euphorbia Cyparissias.—*T. Johnson*—Salicornia herbacea.—*S. H. B.*—Tecoma grandiflora.—*J. J. D.*—Anaphalis margaritacea (Gnaphalium margaritaceum).—*Roburum*—1, Artemisia pontica; 2, Artemisia maritima.—*Notts*—Your plant is the Poison Ivy (Rhus Toxicodendron), a very dangerous subject, and there is little doubt it is to a great extent answerable for a good deal of the worry you have so long had. At the same time, some persons are more affected by it than others. Do not use it for table decoration. When handling it wear gloves.—*W. B.*—Corydalis lutea.—*Miss Jackson*—Datura Stramonium (annual).—*C. West*—Broughtonia sanguinea.—*Dale Viree*—The name of the shrub sent is Escallonia rubra. It is hardy in the southern counties, but would not be likely to thrive in the position you propose. It requires a somewhat sheltered place among other harder shrubs in the northern parts of this country. Even if cut down nearly to the ground by frost, however, it will break again, and, being of quick growth, soon makes a good-sized bush.

NAMES OF FRUIT.—*L. D. B.*, *Berwickshire*.—The Plum is Belgian Purple.—*L. B. Withers*, *Staplehurst*.—1, Bramley's Seedling; 2, Rosemary Russet; 3, Duchess of Gloucester; 4, Ecklinville Seedling; 5, same as No. 3; Pear Beurre Clairgeau.—*W. R.*—2, Josephine de Malines; 5, Doyenne du Comice.—*E. A. Woods*.—1, Stamford Pippin; 2, Bramley's Seedling; 3, Yorkshire Beauty; 4 and 5, Ribston Pippin; 6, Lane's Prince Albert; 7, Dr. Harvey.—*Devonshire*.—The variety is Dr. Harvey (syn. Waltham Abbey Seedling).—*W. Dalton*.—1, Lord Suffield; 2, Ribston Pippin.—*J. E. C.*—New Hawthornden.—*V. E. W.*—Ecklinville Seedling.—*J. L.*—Apples: 1, Byford Wonder; 2, Wealthy; 3, Bramley's Seedling. Pears: 1, Beurre d'Anjou; 2, Princess; 3, Souvenir du Congrès; 4, Doyenne du Comice.—*W. L.*—Pear Williams' Bon Chretien.

SHORT REPLIES.—*W. P.*—The tuber you send is a very poor sample indeed. It exactly resembles those of an American variety in commerce thirty years ago under the name of Climax. But Potatoes vary in shape so much in different soils that they become by those familiar with them in one place quite unrecognisable in another. The sample sent indicates a very poor variety, certainly much inferior to the samples of Up-to-Date, Factor, Warrior, Dalmeny Beauty, Renown, Scottish Triumph, and hosts of others. Judging by the sample tuber sent, you do not seem to have a good Potato soil, as the tuber is much cracked. Possibly a dressing of lime, and also of potash, would do much good. Our advice is obtain a few of the leading varieties for late cropping direct from Scotland, and plant them next April on deeply worked fresh soil, and you will doubtless lift a far superior sample to what you now have.—*E. A. Woods*.—The usual rent for fowls to run over grazing land is 1s. per acre, and twenty-five fowls per acre are enough, though double that number are often kept per acre.—*J. S.*—Of the plants concerning which you enquire, Crassula imbricata, also known as Crassula lycopodioides, is a low growing branching plant, whose small leaves are arranged in four rows. The flowers are small and purplish. Mesembryanthemum Cooperi forms a much-branched decumbent plant, with solitary flowers, bright purple in colour and about 2 inches in diameter. We note your remark re succulent plants for indoor culture, and hope to publish an article thereon before long.—*S. A.*—The two important points are to keep Geraniums away from danger of frost and from damping. They would keep well in any room or shed where you could guard against these two evils. They require very little water; in fact, the soil must be kept almost dry. The best plan is to root cuttings now. If you had a cold frame you would be able to keep them through the winter if you took care to keep the frame well covered over with mats during cold weather. A frame with litter around it and mats to cover the glass in cold weather would keep the plants until spring. However, if you give the old plants little or no water and keep them frost-proof, they will live through the winter.—*F. C. G.*—We do not know of any book dealing with the subject, but believe that Messrs. W. Wood and Son, horticultural sundriesmen, of Wood Green, London, issue a small pamphlet bearing on the matter.—*Rubrum*.—(1) We think your selection of Pinus montana for the position named a most admirable one, while the arrangement could not be improved upon. Given good thriving specimens, 3 feet to 4 feet high, a space of 6 feet from each other would be a suitable distance. At the same time, Pinus montana is a very variable species, some individuals being of quite a spreading habit of growth, hence, in selecting your plants, preference should be given to those of a more upright and tree-like character. (2) While the Japanese cultivate a number of varieties of their Cherry (Prunus pseudo-cerasus), very few are to be obtained in this country; indeed, the only ones we can find kept in stock by our nurserymen are Watereri and Sieboldii, for they are much alike, with large pure white double flowers, and James H. Veitch, whose blossoms are in conformation the same as the last, but of a delightful rosy hue. The Crabs are a more numerous class, there being the Dartmouth, John Downie, and Cheal's Crimson Siberian, with particularly

bright-coloured fruits; Transparent, yellow; Transcendent, red and yellow; Orange Crab, orange, and several others. Your selection must be to a certain extent limited by the varieties you can obtain on the Paradise stock, as we fear you will not be able to get the whole of them in this way. For permanent planting, a distance of 8 feet apart will be very suitable, but for more immediate effect 6 feet will be preferable.—*E. Goddard*.—The Raspberry-Strawberry sent is quite true, but of very little value as a fruit; indeed, useless, except as a herbaceous novelty. Your gardener is quite right, we should only keep them in a shrubby border. We would advise you to grow the Loganberry. This is excellent in every way, never fails to fruit, and most profitable, larger than the Raspberry, later, and a grand fruiter—a hybrid between the Blackberry and Raspberry. The other is useless as a fruiter.—*F. D.* sends a leaf and a single flower (or pip) of an Ivy-leaved Pelargonium, and states it is a seedling, and also asks our opinion of its value. The individual flower is good, yet, without knowing the habit and size of truss, it is impossible to judge of its merits. We cannot give an opinion on such subjects without seeing size of truss and habit of plant.—*E. Hayter*.—The plant of Lychnis seems to be suffering from an ailment similar to that which sometimes attacks the varieties of herbaceous Phlox now so much grown in gardens. The cause has never been settled in a satisfactory manner, but is generally thought to be brought on by a too liberal use of crude manure. At all events, those in poorer soils are not attacked in this way. From this it would appear to be of a somewhat gouty nature, but once it occurs in a given spot, this ailment is very liable to reappear there, which would seem to indicate a fungoid origin. We should advise transplanting your Lychnis into some good soil without any manure and away from their present position. By so doing you will, in all probability, get rid of the trouble.—*S. E. C.*—The whitish appearance of the leaves of your Tea Rose is caused by red-spider, a most troublesome insect that thrives in a dry atmosphere. To keep Roses under glass free of this pest nothing surpasses syringing with water upon the under side of the foliage. Procure a syringe that has a bend which enables the operator to force a spray of water quite under the foliage. If this be persevered with red spider will be kept in check, but it is well to commence syringing in this way before the enemy is seen. The yellow appearance of Geranium and Fuchsia foliage is either caused by too much moisture at the roots or you have the plants too crowded.—*John Ingram*.—(1) They will be of no use for this season, you may dry them off in the boxes. Keep them in a cool, dry place, where the frost does not penetrate, and they may make useful plants for the garden next year. (2) It is doubtful if such late-struck cuttings will survive the winter, but you may dry them off and keep them in dry soil through the winter, and they may survive. Start them in warmth early in spring, and plant out about the end of May. (3) If you start your plants early in spring they may require 4½-inch pots before you can plant out. It will not be safe to plant out until the time stated above. We may further point out that the usual course is to save the roots that have flowered during the season, and take cuttings from them the following March for planting the same season, or small roots kept over answer the same purpose.—*J. H. Hall*.—The insects attacking your plants are specimens of one of the plant bugs (Lygus pabulinus); they belong to the same order as the domestic insect. Most of the species which belong to this order feed on the juices of plants, but it is only a few species which occur in sufficient numbers to do any appreciable injury to the plant they feed on. These insects when first hatched from the eggs very much resemble their parents, but they have no wings. They undergo transformations like other insects, but the changes are not so obvious as they are in most other orders. Until they assume wings (when they are in the perfect state) they may be killed by spraying the plants with paraffin emulsion; in their perfect condition they would probably fly away. They may be caught by shaking the plants over an open umbrella, sheets of metal, boards, &c., freshly tarred or painted.—*G. S. S.*—*K. Brooks-Wood*.—The caterpillar arrived quite safely this time; it is a specimen of the caterpillar of the Goat Moth (Cossus ligniperda), and feeds in the stems of Willows, Poplars, Oaks, Ashes, and Lilacs. The moth is a large insect, measuring from 3 inches to 3½ inches across the wings, which are of a dull brown colour, with sundry fine darker lines and mottlings. The caterpillars are enormously strong in comparison to their size; it is said that one was placed under a bell-glass which weighed half a pound (more than ten times the weight of the insect), a book weighing 4lb. was placed on the top of the glass, but the insect raised the glass and escaped; the shape of the glass, however, was somewhat in the insect's favour.—*G. S. S.*—*Lancaster*.—A very desirable plant for your purpose is Antennaria tomentosa, whose silvery grey foliage would serve admirably as a foil to the vivid tints of the Lobelia; or Cerastium tomentosum might be used for the same purpose, but our choice would be the Antennaria. The plant referred to by you is most probably Sedum Sieboldi, of which it might be difficult to obtain sufficient stock for a bed, and a wet winter might affect it greatly.—*Miss Orley Parker*.—The reason of your Hydrangeas behaving in the way they do is that they are not the ordinary Hydrangea Hortensis at all, but the variety japonica. In Hydrangea Hortensis the head of flower is principally composed of large sterile blooms, whereas in the variety japonica they are limited to a scattered few around the outside of the cluster, the major portion consisting of the small fertile flowers containing the organs of reproduction, which from their small size you regard as blind blooms, a term that might be truthfully applied to the larger and more showy ones, but not to the small flowers. No system of cultivation will transform one variety into the other.

SOCIETIES.

ROYAL HORTICULTURAL SOCIETY.

FURTHER MEDAL AWARDS.

In addition to the medals awarded by the floral committee at the meeting on the 26th ult., and mentioned in our last issue, the following were also given: Silver-gilt Flora to Messrs. Stredwick and Son, St. Leonards-on-Sea. Silver-gilt Banksian to Messrs. Carter, Page, and Co. Silver Flora to Messrs. Jackson and Son, Woking; and Messrs. T. S. Ware, Limited, Feltham. Silver Banksian to Messrs. George Bunyard and Co., Maidstone; Mr. Prichard, Christchurch; Messrs. James Veitch and Sons, Limited, Chelsea; and Messrs. William Cutbush and Son, Highgate. Bronze Flora to Messrs. W. Wells and Co., Redhill; and Messrs. J. Cheal and Sons, Crawley.

DAHLIAS—SEPTEMBER 26.

New Dahlias were in great force at this meeting, all sections of the flower being represented. By arrangement the novelties were judged by a joint committee of the National Dahlia Society and a deputation from the floral committee of the Royal Horticultural Society. In these circumstances, therefore, the whole of the under-mentioned varieties receive the first-class certificate of the National Dahlia Society and the award of merit of the Royal Horticultural Society. The sitting was a prolonged one, a large number of new sorts having been entered for certificate.

Mrs. G. Stevenson (Cactus).—A fine yellow self of excellent form, the incurving florets narrow; a good exhibition flower. From Mr. J. T. West, Brentwood, Essex.

Atight (Cactus).—A very showy and distinct as well as bright-looking variety. The colour is flame orange, and the flower is of a good standard of merit.

Faunus (Cactus).—A pretty and distinct flower, the florets well incurved and coloured fawn with a rosy blend. Of good exhibition size. This pair came from Messrs. J. Burrell and Co., Cambridge.

Ivanhoe (Cactus).—A good type of flower of much merit, coloured pale orange and yellow.

Mrs. Macmillan (Cactus).—A very charming flower, coloured rose with white centre. The florets are elegantly incurved.

Primrose (Cactus).—This is soft yellow, and the finely incurved florets will not be lacking admirers. This set of three came from Messrs. J. Stredwick and Son, Silver Hill Park, St. Leonards-on-Sea.

Victorian (Fancy Cactus).—A striped or bizarre flower, for which at present we believe no official section is catalogued. The flower is a good one, and is chiefly coloured purple and maroon. From Messrs. J. Stredwick and Son, St. Leonards-on-Sea.

Titus (Pompon Cactus).—These are small or miniature-flowered Cactus varieties, with all the good attributes of the larger flowers, only one-half their size. We think there is a future for this new section, and particularly for cutting. The flower is yellow at the base, and shaded buff above. Exhibited by Messrs. J. Burrell and Co., Cambridge.

Little Fred (Pompon Cactus).—Creamy white self, and a very pretty flower. From Mr. H. Shoesmith, Woking.

Delicacy (Show).—Almost a model flower, of medium size, and very compact. The colour is rosy mauve, the florets tipped with carmine.

Favourite (Show).—The groundwork of the flower is pale canary, and, shaded pale buff above, constitutes a pleasing as well as a meritorious flower. This pair of show Dahlias came from Mr. S. Mortimer, Rowledge, Farnham, Surrey.

Peacemaker (Pompon).—An ideal flower of the Pompon class, pure white in colour. From Messrs. Keynes and Co., Salisbury.

Kitty Barrett (Pompon).—This is also quite a typical flower, and pale yellow in colour, the florets tipped and edged with rosy peach. From Mr. J. T. West, Brentwood.

Tom Tit (Pompon Cactus).—A neat and almost self coloured flower of a rosy pink hue. From Messrs. J. Stredwick and Son, St. Leonards-on-Sea.

Stromboli (Single).—This is maroon-crimson, with a lighter hue interspersed, the well-formed florets being heavily touched at the tips with white. From Messrs. J. Cheal and Son, Crawley.

Veronique (Single).—A well shaped flower of a rosy red colour, with irregular scarlet stripes.

Cynthia (Single).—A very pretty flower, self coloured and of a pale pink hue. This is one of the most charming single-flowered kinds we have seen of late. These were exhibited by Mr. V. Seale, Sevenoaks.

CACTUS DAHLIA TRIAL, WISLEY, SEPTEMBER 28.

The sub-committee appointed to examine the Dahlias met on the above date, when the following varieties were awarded each three marks. The conditions were the same as on the 15th ult.

Amos Perry (Hobbies, Limited).—A well known and meritorious Cactus of excellent form, the rich scarlet flowers on 1 foot long stalks appearing well above the foliage; height 4½ feet.

Cannell's Gem (Veitch).—This variety promises well as a garden plant. The foliage is not too heavy or abundant, and the general effect is good. Colour light scarlet, 3½ feet high.

F. A. Wellesley (Shoesmith).—A large flower of the true Cactus type. The colour is cerise-crimson; height 3½ feet.

King of Siam (Chiswick stock).—A showy and effective sort, coloured rosy purple and shaded crimson. The flowers are well above the leafage; height 3½ feet.

Mary (Chiswick stock).—A flower of the Arachne type, scarlet at the base, the tips white. Occasionally there is a self-coloured scarlet flower seen, but the general effect is

good, and by reason of its more meagre foliage many flowers are seen; height 4 feet.

Mrs. J. S. Brunton (Mortimer).—A good self yellow flower, the deep yellow passing to quite a golden tint; height 3½ feet.

Mrs. John Barker (Chiswick stock).—A flower of exceptional size; it is rosy salmon in colour; height 3½ feet.

Peace (Chiswick stock).—This is usually catalogued as a white, but is really cream; the flowers only of medium size, erect, and abundantly produced on stiff stems; height 3 feet.

Spotless Queen.—Pure white, medium size, dwarf habit, free flowering; excellent for cut bloom or for garden decoration; height 2½ feet.

Standard Bearer (Veitch).—Rich scarlet flowers of moderate size, and abundantly produced; habit bushy and compact; a most effective sort; height 3 feet.

CRAWLEY AND DISTRICT GARDENERS' ASSOCIATION.

The second annual exhibition was held on Wednesday, the 15th ult., in the Assembly Rooms, Crawley. Splendid weather prevailed, and a large number of ladies and gentlemen of the neighbourhood were present to witness the opening of the exhibition, at 2.30 in the afternoon, by Mrs. H. H. Finch, Goffs Hill, who is a very keen supporter of the association, and takes a great deal of interest in its doings. John Goddard, Esq., J.P., having returned thanks to Mrs. Finch for her very interesting and encouraging remarks, little Miss Carrie Hemsley, the six year old daughter of the hon. secretary, presented Mrs. Finch with a handsome bouquet of Roses on behalf of the members of the association. Mr. and Mrs. Finch kindly provided the medals and cost of engraving of same to all the successful exhibitors, some thirty in number. A good number of visitors took advantage of the beautiful weather and visited the exhibition, at the close of which the sum of five guineas was handed over to the Cottage Hospital. Messrs. Holton (assistant secretary), Bartley, and Hemsley officiated as judges in the gardeners' sections; Messrs. Neal, Martin, Shepherd, Mitchell, and Brooker served in the same capacity for the amateurs and cottagers' exhibits.

The following awards were made: Gold medal to Messrs. J. Cheal and Sons, Lowfield Nurseries, for collection of Cactus, single, and Pompon Dahlias. Large silver-gilt medals to Mr. E. Neal, gardener to John A. Nix, Esq., Tilgate, Crawley, for group of plants and collection of fruit; and Mr. A. B. Wadls, gardener to Sir Weetman Pearson, Bart., Paddockhurst, Worth, for group of plants and collection of Apples and Pears. Silver-gilt medals to Mr. W. Shepherd, gardener to H. Hobson Finch, Esq., Goffs Hill, Crawley, for group of plants and collection of fruit and vegetables; Mr. H. Brooker, gardener to Miss Rawson, Deerswood, Ifield, for group of plants and collection of fruit; Mr. J. Guyatt, gardener to F. E. Charles, Esq., Timberham, Lowfield Heath, for collection of vegetables; Mr. Reeves, gardener to Captain Blake, Pucks Croft, Ruspur, for collection of fruit and vegetables; Mr. J. Comber, gardener to L. Messel, Esq., Nymans, Handcross, for group of herbaceous flowers and collection of fruit; Mr. J. Martin, gardener to P. Saillard, Esq., Buchan Hill, Crawley, for group of plants and collection of Apples and Pears; and Mr. G. White, gardener to John Goddard, Esq., J.P., The Elms, Crawley, for group of plants.

Silver medals were awarded to Mr. G. Dancy, gardener to C. C. Nichols, Esq., Charlwood House, Lowfield Heath, for collection of vegetables; Mr. Guttridge, gardener to E. Lehmann, Esq., Ifield Lodge, Crawley, for collection of Roses; Mr. J. B. Ross, gardener to—Heptburn, Esq., Stan Hill Court, Charlwood, for collection of table plants; Mr. C. Daisley, gardener to the Rev. A. Bridge, Worth Rectory, for collection of Dahlias and vegetables; Mr. W. Dowsett, gardener to V. Silberberg, Esq., The Manor House, Crawley, for collection of fruit; Mr. J. Bish, gardener to E. T. Hohler, Esq., Hydecroft, Lowfield Heath, for collection of vegetables. Three silver-gilt, nine silver medals, and four certificates of merit were awarded to amateurs and cottagers, whilst two silver-gilt, two silver medals, and one certificate of merit were awarded to them for the best kept gardens.

NATIONAL AMATEUR GARDENERS' ASSOCIATION.

A LARGE number of the members of the National Amateur Gardeners' Association paid a visit to Messrs. Cannell's nurseries at Swanley Junction recently, which were inspected with much interest, the visitors expressing great admiration at all they saw. Mr. T. W. Sanders proposed a vote of thanks to Mr. Cannell for his kind invitation and the enjoyable time afforded at the attractive nurseries. He said that Mr. Cannell had the best and finest types of plants to be seen. When they journeyed to Swanley Junction they always found something to repay their visit, such as the beautiful things they had seen that day.

CROYDON AND DISTRICT HORTICULTURAL SOCIETY.

PITCHER PLANTS.

THIS society met at their rooms, Sunflower Temperance Hotel, recently, and were well entertained with a lecture by Mr. J. Gregory, West Croydon, on those uncommon but interesting plants, the "Pitcher Plants." To aid him in his discourse he had lantern views. In the discussion on the subject Mr. Gregory answered all questions, and these helped to elaborate his lecture. A very hearty vote of thanks was conveyed to him. There was quite a floral display contributed by the members, Mr. F. Brazier,

nurseryman, Caterham, filling a 20-foot run of space with cut flowers. From the president's garden, Mr. J. J. Reid, a good display was made by Mr. F. Oxtoby, his head gardener, who had a collection of herbaceous flowers and Melons. Mr. M. E. Mills, Coombe House Gardens, staged several interesting novelties; and from Mr. Charles Thrower, Chesham Park, Anerley, came two seedling Coleus of beautiful colour and habit. The exhibits were much appreciated, and a vote of thanks to the exhibitors was passed.

CARDIFF GARDENERS' ASSOCIATION.

SYLLABUS, 1905-6.—October 31, "Hardy Plants and Informal Gardening," by Mr. Harold Evans, Hardy Plant Nurseries, Llanishen; November 28, "Bouvardias," by Mr. Sharrett, representative of the Newport Gardeners' Mutual Improvement Association; December 12, "Fruit Trees in Pots," by Mr. J. Dinwoodie, head gardener to J. Cory, Esq., The Duffryn, Glamorgan; 1906—January 9, "Hints to Young Gardeners," by Mr. E. H. B. tram, Parknewydd, Abercynon; January 23, "Vegetables Out of Season," by Mr. Woodward, representative of the Bassaleg Cottagers' Mutual Improvement Association; February 6, "Melons," by Mr. M. Toy, foreman, Cardiff Castle Gardens; February 20, "Our Resident Birds as Friends and Foes," by Mr. J. Mountney, naturalist, Royal Arcade, Cardiff; March 6, "Potatoes," by Mr. Thomas Malpass, head gardener to the president, Green Lawn, Penylan.

REDHILL, REIGATE, AND DISTRICT GARDENERS' ASSOCIATION.

The third annual general meeting of this society was held on the 19th ult., Mr. W. P. B. Bond in the chair, about 100 members being present. Mr. W. Rose, the hon. secretary, read the annual report and balance-sheet, which proved highly satisfactory, showing a substantial balance in hand. Mr. Jeremiah Colman was unanimously re-elected president of the association, Mr. W. P. B. Bond also being again voted to the office of chairman, Mr. W. Leaman vice-chairman, and Mr. W. Rose hon. secretary. The society has had a most successful year, and it is pleasing to note it is in a very good financial state. The programme for the ensuing year embraces many subjects which should prove of much interest to the members. The society had a membership of 167 during 1904, twelve new members being enrolled at the annual meeting, there being an average attendance of over 100 at all meetings during the past year.

BATH GARDENERS' DEBATING SOCIETY.

The usual fortnightly meeting of this society was held on the 26th ult., at the Foresters' Hall, Bath. Mr. Parrott presided over a large attendance. The chief item for discussion was the resignation of Mr. Butt, the secretary, through business reasons, and the unanimous election of Mr. Thomas E. Allen in his place. The numerous exhibits at this meeting were remarkable for their quality. Mr. Sparey's collection of Potatoes receiving special attention. In connexion with these exhibitions the chairman announced that a silver and bronze medal would be awarded at the close of the season to the two members who gained the greatest average number of points. Mr. Sparey gave an excellent paper on "Potato Culture," which was greatly appreciated by the members, and an interesting discussion thereon followed. Eleven new members were elected, bringing the membership to a total of about 250.

SCOTTISH HORTICULTURAL SOCIETIES.

SCONE HORTICULTURAL SOCIETY.—The annual general meeting of the Scone Horticultural Society was held recently, the Rev. A. S. Martin, president, in the chair. The hon. secretary, Mr. J. McIntosh, submitted the balance-sheet for the year, which showed a small deficiency on the year's working, but it was thought generally satisfactory on account of the additions made to the prize-money paid. The following were elected for the ensuing year: President, Rev. A. S. Martin, B.D.; vice-presidents, Mr. E. Campbell and Mr. D. Campbell; hon. secretary, Mr. E. Heron; hon. treasurer, Mr. John McIntosh.

BROUGHTY FERRY.—The annual meeting of the Broughty Ferry Horticultural Society was held on the 25th ult., the chair being occupied by Mr. D. K. Meston. The reports of the secretary and treasurer were of a satisfactory character, and these were unanimously adopted. The following office-bearers were appointed: President, Mr. J. R. Christie; vice-presidents, Messrs. Alexander Tucher, W. G. Anderson, and J. Stark; secretary, Mr. W. Christie, Brackenbrae Gardens; treasurer, Mr. A. Robertson.

BURRELTON.—The annual general meeting of this society was held in the Public Hall on the evening of the 25th ult., Mr. R. Fyfe, the retiring president, in the chair. After the prize-money had been paid it was reported that, subject to the final audit, there would be practically the same balance to the credit of the society as last year. The silver cup presented by Mr. Fyfe was handed over to the winner, Mr. Gow. The following office-bearers were elected: President, Mr. J. Craig; vice-president, Mr. R. Morris; secretary, Mr. C. Miller; treasurer, Mr. W. Purves.

CARMYLIE.—The annual meeting of the Carmylie Horticultural Society was held on the 25th ult. The report of the treasurer which was submitted showed that the funds were in a good condition, there being a small balance to the credit of the society. It was arranged to hold the usual show in August next year, and office-bearers and a committee were elected. The secretary is Mr. D. Buchan, Redford; and the treasurer, Mr. D. T. Webster, Redford.

MILNGAYE.—The annual meeting was held in the Burgh Hall, Milngavie, on the 27th ult., under the chairmanship of Mr. A. Fraser. Mr. John Dinwoodie, treasurer, submitted his financial statement, which showed a balance of £9 0s. 6d. to the credit of the society, against a credit balance of £3 4s. 7d. last year. This was considered satisfactory. The following office-bearers were appointed: President, Colonel Birrell, Clobber; vice-president, Mr. C. Bissland; treasurer and interim secretary, Mr. John Dinwoodie.

LEGAL POINTS.

WORKMEN'S COMPENSATION (A Constant Reader).—The Workmen's Compensation Act applies to a boy engaged in the garden and also to look after poultry. We think that a boy occupying this position would have to give, and would be entitled to receive, a month's notice, although he is paid fortnightly. He is a domestic servant, and the rules as to domestic servants apply to his case.

GUN LICENCE (G. F.).—We do not understand your question. An employee killing rabbits by permission of his employer, under the provisions of the Ground Game Act, requires a gun licence, but not a game licence. If he kills rabbits on the property of some person other than his employer, he will require both a game and a gun licence, and it is quite immaterial whether he must or must not cross a highway for the purpose of reaching the property on which he intends to shoot.

STOLEN GOODS (Mary W., Bodmin).—Where a person buys goods which have been stolen, the buyer acquires a good title provided he buys the goods in market overt in good faith and without notice of any defect in the seller's title, but if the thief is convicted the property in the goods reverts to the person from whom they were stolen. The goods must, however, have been actually stolen. If they have merely been obtained by fraud or other wrongful means not amounting to larceny, the property in them does not revert on the conviction of the thief. Market overt or open market is an open public and legally constituted market, but in the City of London every shop except a pawnbroker's is on every day except Sunday a market overt or open market. There is a special rule as to the sale of stolen horses in market overt. These can be claimed by the person from whom they were stolen at any time within six months on proof of the theft, and tender of the amount paid by the purchaser. Stolen property which has not been sold under such conditions as entitle the purchaser to retain it may be taken by the true owner wherever he can find it, but the best course is to apply for the assistance of the police.

ADMINISTRATION AND PROTECTION OF A LUNATIC'S PROPERTY (Distressed).—Application should be made by the wife or nearest relative to the Court of Lunacy for an order for the administration of the lunatic's property. In cases where the lunacy is not disputed the application may be made by summons, to the masters in lunacy, who will make an order appointing a receiver of the property, and directing how it should be dealt with. Provision will be made for the lunatic's custody and maintenance and for the payment of his debts, but the Court invariably reserves a sufficient amount to maintain the lunatic in reasonable comfort, having regard to his station in life. A sane person can be made to pay his debts if he has assets, however ill he may be, but the creditors of a lunatic must look for payment, during his lifetime, to that portion of his property which the Court of Lunacy appropriates to the purpose. On the lunatic's death his property is administered in the usual way. In cases where there is a doubt regarding the sanity of the suggested lunatic, the application to the Court should be for an inquisition. An application by summons is not expensive in simple cases. If the lunatic's income is more than sufficient for his maintenance the Court may direct a portion to be applied in maintaining any persons who are

dependent upon him. If a person is found to be a lunatic by inquisition a committee of his estate is appointed, but the powers of a committee and a receiver are very similar. When an order is made on an inquisition directions are given as to the custody of the lunatic's person. If thought desirable the Court will direct the sale or leasing of the lunatic's property. The powers of the Court extend to cases in which a person, owing to mental infirmity arising from disease or age, is incapable of managing his affairs. Applications are frequently made for the administration of the estates of persons who are paralysed or suffering from senile decay.

GARDENER: NOTICE (E. P.).—A second gardener who is engaged by the week, and paid by the week, is only entitled to receive, and only bound to give, a week's notice. If, however, he is engaged by the year, although paid weekly, he would have to give, and would be entitled to receive, a month's notice. When an undergardener is engaged at so much per week, and nothing is said as to whether the hiring is yearly or weekly, it is doubtful whether he would be entitled to receive, and compelled to give, a month's notice or a week's notice; but the better opinion seems to be that a week's notice only would be necessary. It is always best to have a specific arrangement in such cases. When a servant leaves his master's service without proper notice, the master can only sue for the damages which he has sustained. If he can replace the servant immediately he will sustain no damage. It is, of course, open to the master to retain the wages earned by the servant up to the date when he wrongfully leaves his master's service. If the servant sues for the wages the master would be entitled to counterclaim for the damages (if any) which he has sustained owing to the servant's breach of contract. If the master has sustained no damage the servant would be entitled to recover his wages.

MONEY IN CHANCERY (T. J., St. Albans).—A list of what are known as the "Dormant Funds in Chancery," is published in a special issue of the *London Gazette*, of which a copy can be obtained from the publishers on payment of 1s. 2d. Applications for copies should be made to the publishers *London Gazette*, St. Martin's Lane, London, W.C. A remittance should accompany the application. Any enquiry regarding any fund mentioned in the list should be addressed to the Paymaster-General, Royal Courts of Justice, Strand, London, W.C. If the information which he furnishes leads the applicant to think that he or she is interested in the fund in question, the best course is to consult a solicitor as to further proceedings.

LATE NOTES.

A good example.—At a committee meeting of the Woolton Chrysanthemum Society held last week Mr. G. Haig proposed and Mr. T. Hitchman seconded, which was carried unanimously, that an invitation be tendered to the exhibitors at the forthcoming exhibition to present voluntarily 5 per cent. of their prize winnings to the Gardeners' Royal Benevolent Institution. The consideration of the matter led to its general approval, and it was urged that if this were generally followed a largely increased number of orphans and aged gardeners would be able to enjoy the privileges so greatly needed.

Carnation competition and lecture at Broughty Ferry.—The members of the Broughty Ferry Horticultural Association held a Carnation competition on the evening of the 19th ult. The competition was very keen, and a large number of excellent blooms were staged. The prizes were adjudged as follows: First, Mr. Joseph Dick, Heathbank Gardens; second, Mr. R. H. Low, Dundee; third, Mr. D. Eggo, Brook Street. The com-

petition was followed by the reading of a capital paper on "Carnations and their Culture," by Mr. D. Kidd, Carberry Tower, Musselburgh. As was to be expected from a Carnation grower of Mr. Kidd's experience and ability, the paper was a valuable one, and it was much appreciated by those present, over whom Mr. James Slater presided. Sweet Peas, exhibited by Mr. James Kidd, Forthill House Gardens, and Carnations, shown by Mr. Joseph Dick, were greatly admired.

Double-flowered Lobelia.—Most visitors to the Royal Horticultural Society's meeting on August 29 looked upon a double-flowered Lobelia (Kathleen Mallard) to which an award of merit was bestowed as an absolute novelty, but such is not the case, as there was one in fairly general cultivation thirty years ago. It was given a first-class certificate on June 4, 1873, under the name of *Lobelia pumila grandiflora flore-pleno*, and a coloured plate of it was given in, I think, the *Florist* of those days. So popular did it become that I have seen it brought into Covent Garden Market in considerable quantities, but for some years past I have lost sight of it. A second double-flowered variety, whose blue flowers were blotched with white, was also in cultivation but not much grown. This bore the cumbersome name of *Lobelia cærulea alba marmorata flore-pleno*. These double-flowered varieties were of dense compact growth, and very liable to damp off during the winter months, which feature doubtless caused them ultimately to become lost.—H. P.

Pea Masterpiece.—“How are your Peas this season?” I was asked the other week. “Immense,” I replied, and I told him a few pods yet left would stretch across THE GARDEN. He would, however, not believe this. Now here is one—a Masterpiece—not by a Vandike or a Rembrandt, but by Sutton's. Big-podded Peas generally are often inflated. Many readers will recollect the old Superlative in 1872, a tall variety 8 feet high, having pods 5 inches to nearly 7 inches long, but this soon dropped out of cultivation through the lightness of their own weight. In Masterpiece we have a variety reduced in height by one-half, while the size of pods, quality, numbers, and regularity of Peas within them have improved. Readers can form their own conception or even measure the actual size of pod by the illustration, which contained eleven large Peas when opened.—B. L. [A very interesting photograph, but, unfortunately, not suitable for reproduction. The pod was the same length as the words THE GARDEN on the cover.—ED.]

Pyrus lanata.—During the past few weeks one of the most ornamental features among our hardy trees has been the fruits of the various “White Beam Trees,” that is, the species of *Pyrus* belonging to the Aria group. The crop is unusually plentiful this autumn. The most striking of them is this fine Himalayan species. Its fruit ripens towards the end of August, and is then bright red—almost what one might term a rich scarlet. They are borne in large, pendulous, corymbose clusters, each fruit of oblong shape, and nearly half an inch in length. *Pyrus lanata* is a native of the Himalaya, and in foliage, as well as in fruit, is one of the finest of the White Beam Trees. Its large, elliptical leaves are 6 inches or more long, covered beneath with the greyish felt that is common to this group, but less strongly toothed at the edges than most of them. It is a tree of rather erect habit, and is particularly well suited for gardens whose space will only allow of small trees being grown therein. Its greatest beauty is at the fruiting season, but it is also very attractive when in flower in spring, and its fine foliage makes it striking all through the summer. It is to be obtained sometimes under the name of *Pyrus Aria* var. *majestica*.—W. J. BEAN.

* * The Yearly Subscription to THE GARDEN is: Inland, 6s. 6d.; Foreign, 8s. 9d.

THE GARDEN.

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AUTUMN TINTS.

WHEN planting a garden some thought should be directed to the autumn colouring of trees and shrubs; some of those whose changing leaves make glorious bits of colour in the autumn months should be included, and their placing in the park or garden should be a matter for careful consideration. In some instances they have the double advantage of being excellent flowering plants at other periods of the year, and so justify their inclusion in collections where spring effect is the principal feature. Autumn effects are most desirable in gardens, and especially in public gardens. The selection of subjects for foliage effect in autumn needs care, for, while some may be depended upon to colour well almost every year, others are effective at rare intervals only.

Among trees, the Acers as a whole are good, some being particularly brilliant. Of the latter, *A. rubrum*, *Ginnala*, *circinatum*, *dasy-carpum*, *palmatum* and varieties, *saccharinum*, and *pictum* all take on a bright orange-scarlet colour, while *A. macrophyllum*, *insigne*, and some of the varieties of the common Sycamore (*A. Pseudo-platanus*) develop a pleasing shade of yellow, and *A. platanoides* var. *Reitenbachii* becomes deep red. The Oaks give variety of colouring to the woodland in autumn, for many of them turn a brilliant red or yellow. *Quercus coccinea* and the Knap Hill form are perhaps the best; the leaves turn to a very bright red. *Q. rubra* also turns red; *Q. heterophylla* red and yellow, the latest-formed leaves being more brilliant still. The dwarf *Q. prinoides* turns bright red, while *Q. alba*, *bicolor*, and others turn yellow and brown. *Amelanchier canadensis*, which is so pretty in spring when covered with white blossoms, is, if anything, finer still when the leaves change colour.

Horse Chestnuts turn to a golden tint, as do also many of the Magnolias, such as *M. Fraseri* and *M. acuminata*, the gold of the latter turning to brown before the leaves fall. The Nyssas are very bright, being orange and scarlet throughout September and October. The curious *Parrotia persica*, which is very noticeable in early spring, when its leafless branches are clothed

with small bright red blossoms, is conspicuous every autumn by reason of its showy red and yellow leaves, while the *Caryas* are clothed with gold. The Thorns are particularly showy in autumn, many of them turning to lovely shades of red or yellow. Some of the most effective are *Crataegus Crus-galli* and varieties, *C. punctata*, *mollis*, *pinnatifida*, *coccinea*, *oxyacanthoides*, and others.

Of shrubs there are some beautiful sorts among the *Berberis* family. *B. vulgaris*, *concinna*, *angulosa*, and *Thunbergii* are very showy, their foliage turning to orange-scarlet. The *Rhus* develop most brilliantly-coloured examples of leafage, particularly *R. typhina*, *vernifera*, *Osbeckii*, *glabra*, and *cotinoides*; the latter is always most highly coloured when growing in poor soil. *Ribes aureum* is not to be despised, as the leaves turn to a pretty red and yellow. The autumn-flowering Witch Hazel is more attractive on account of its golden foliage now than by reason of its flowers, for these are almost hidden by the golden leaves. Many of the Vines make trellises and arbours a mass of lovely colouring with their richly-tinted foliage, *Vitis Coignetiae*, *Labrusca*, *quinquefolia*, *muralis*, and others being very fine, while nothing is more effective as a wall covering than *Vitis inconstans*, or, to give it its more popular name, *Ampelopsis Veitchii*. Of conifers there are three that deserve notice, namely, *Taxodium distichum*, whose leaves turn brown, and *Pseudolarix Kämpferi* and *Ginkgo biloba*, whose yellow foliage produces a striking effect, especially if they are planted among evergreen trees, such as Yews or Hollies.

TREES IN LONDON.

No greater mistake can be made than to plant the Lime in London, as in many cases it is by midsummer a miserable object, and given a fairly dry season it is leafless or worse before August is out. Added to this, the Honeydew-like matter exuded therefrom contaminates everything underneath. The only time that the Lime is attractive in London is for a very short period after the development of the leaves, but as their roughened surface catches all impurities their beauty is soon gone. In spite of this, the Lime is still largely planted, and many more desirable subjects passed over altogether. The way in which the Plane adapts itself to London conditions is well known and very largely acted upon, but a

continual repetition of *Planes* is apt to become monotonous.

One very beautiful tree whose merits as an ornamental subject are too often passed over, though the value of its timber is being freely discussed in the pages of a contemporary, is the False Acacia (*Robinia Pseudacacia*), whose lightly pinnate leaves impart a very graceful aspect to the tree. They are also of a rich deep green tint, and of a hard, firm texture, which, combined with their smooth surface, render them almost indifferent to the impurities of large towns.

Another item worthy of consideration is that the Acacia resists drought well, a feature often called into requisition in London, where proximity to drains and sewers, and the covering of the roots with flagstones, have to be contended with. Beside the typical kind there are some varieties to which attention may be directed, notably *inermis* (the Mop-headed Acacia), which is often overdone in villa gardens; *bessoniana*, as free a grower as the common kind, but with pink instead of white blossoms; and *elegans* or *microphylla*, of medium vigour and a very graceful tree.

The *Ailantus*, which is of too wide-spreading a nature for planting as a street tree, is indifferent to the London atmosphere, and in some of the squares fine specimens are to be met with, which in the early days of September not only retain their original freshness of leafage, but some of them receive in addition an extra feature in the shape of their large seed clusters, which individually suggest the keys of the Ash, but are of a warm light reddish brown colour. Under conditions such as that just named for the *Ailantus* the *Catalpa* does well, and in spite of the somewhat soft texture of its foliage. Many fine specimens within the London area were thickly laden with blossoms about the end of July; indeed, the effect was so beautiful that anyone claiming for this *Catalpa* the merits of being the finest tree that flowers after midsummer would not find many to dispute the assertion.

Other trees quite as common as the Lime, but much better for London planting, are some of the Maples, particularly the Sycamore and the Norway Maple, with the Canadian Poplar.

Of shrubs the *Aucuba*, *Euonymus*, *Forsythia*, *Holly*, *Laurel*, *Lilac*, and *Privet* are well known, but the common Fig thrives even in shaded courtyards, and the leafage is very handsome. The object of this note is by no means to give an exhaustive list of trees that can be well grown in London, but rather to call attention to a few common subjects that are not sufficiently appreciated for the purpose. H. P.

DEATH OF H. G. MOON.

ENGLISH art and THE GARDEN have sustained a grievous loss in the death of Mr. H. G. Moon at the early age of forty-eight. He was a man of sterling worth, devoted to his art, a good husband, and a good friend, and through the sad lingering weeks of a terrible illness thinking of his life's work and those around him. Henry George Moon was the son of a parliamentary agent well known in his day, who left his family to fight life's battle alone. His early school days were spent at Dr. Bell's at Barnet, until the death of his father in 1866. In his boyhood days a love of art revealed itself, and for many years he gained knowledge at the Birkbeck and St. Martin's School of Art, where he won many prizes.

In the year 1878 Moon joined the Gilbert Sketching Club, labouring by day for twelve years in the offices of Messrs. Cole and Jackson, solicitors, in Essex Street, with a view to the law, but the office and art are seldom faithful companions. Through those years he was patiently acquiring knowledge, and a happy circumstance brought him under the notice of Mr. William Robinson, who encouraged the young student, and in 1880 the artist became associated with THE GARDEN, since then most of its coloured plates have been painted by him. "The English Flower Garden," "Wild Garden," and of late years "Flora and Sylva," have been largely illustrated by Moon, and Mr. Robinson's influence extended beyond this. He saw in Moon a man of great artistic gift, and from the painting of flowers led him to develop an intense love of the English landscape, and in his friend's beautiful garden and woods at Gravetye Manor many of the happiest days of an all too brief life were passed in the careful study of Nature.

Many days have we spent with our friend on the Norfolk Broads, sometimes with Mr. W. E. Norton, an American artist of repute, as a companion, and the friendship of the two artists resulted in an exhibition a few years ago, which those with a true knowledge of art who visited it will ever remember.

In the autumn of 1892 Moon decided to settle at St. Albans with his mother and sister, and many days were spent there in the beautiful Hertfordshire lanes and woods painting direct from Nature, and discovering, as a knowledge of his art developed, fresh beauties in sky, wood, and mead.

In 1894 Moon married the only daughter of Mr. F. Sander, the famous Orchid grower at St. Albans, and illustrated for his father-in-law the magnificent work, "Reichenbachia," which is a monument to the striking genius of the artist.

This is an imperfect and hasty sketch of a great artist. With his death passes away a man who lived a quiet and beautiful life among the flowers he loved and knew so well. He was a good gardener, too. Helianthus H. G. Moon and many another flower he raised give beauty to our borders and woodlands, and his exquisite selection of Auriculas has still to be given to the flower-loving world. Many a struggling artist will remember him with kindly feelings for the helping hand of friendship he was ever ready to hold out to those imbued with the same love of Nature. The funeral took place at St. Albans on Thursday last, when many gardening and other friends were present. A large number of wreaths were sent by those unable to attend.

PRIZES FOR GARDENERS.
OCTOBER.

PLANTING FRUIT TREES.

- A First Prize of FOUR GUINEAS,
A Second Prize of TWO GUINEAS,
A Third Prize of ONE GUINEA,
And a Fourth Prize of HALF-A-GUINEA

will be awarded to the best answers to the following questions:

I. State the best time for planting hardy fruit trees, to include Apples, Pears, Peaches and Nectarines, Plums, Cherries, Gooseberries, Currants, and Strawberries, giving the distances apart to plant each.

II. Describe the composition of the soil most suitable for the culture of each of the above.

III. Describe your methods of planting, also of the preparation of the soil, both for orchard and garden planting, and staking and protection after planting.

IV. What points would you look for in selecting young trees to plant?

V. Do you recommend the use of manure at planting time? If so, what sort of manure, and how much for each tree? Describe the methods to adopt so as to secure the best growth during the summer after planting.

VI. Should young fruit trees, especially orchard trees, be pruned at planting time, or should this operation be deferred to the second year? Give particulars of the pruning you recommend, whether for the first or second year.

VII. The best position in which to plant an orchard, and how to plant it.

Answers to the above questions must be addressed to the Editor of THE GARDEN, 20, Tavistock Street, Covent Garden, W.C., and the envelope be marked "Competition." October 31 is the latest day for sending in. Both amateur and professional gardeners may compete. The name and address of the competitor must be written on the MS., and not upon a separate piece of paper. The Editor cannot undertake to return the MS. of unsuccessful competitors.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

October 24.—Royal Horticultural Society's Exhibition of Home-grown Vegetables. Lecture by Mr. W. P. Wright on "Potatoes."

October 31.—Southampton Horticultural Show (two days).

November 7.—Royal Horticultural Society's Meeting. Lecture by Dr. J. A. Voelcker, M.A., on "Chemistry in Relation to Horticulture"; Birmingham Chrysanthemum Show (three days).

November 15.—Liverpool Horticultural Association's Chrysanthemum and Fruit Show (two days).

November 24.—Darlington Horticultural Society's Fruit and Chrysanthemum Show.

Daffodils.—Our next issue will be largely devoted to Daffodils, and articles have been contributed by the Rev. S. Eugene Burne, Mr. John Pope, Mr. J. Duncan Pearson, Mr. A. R. Goodwin, Mr. F. Herbert Chapman, Mr. Peter Barr, and Mr. F. W. Burbidge.

The Fruit Conference.—Owing to THE GARDEN going to press on Tuesday we are unable to give a report of the Fruit Conference this week, but will do so in our next issue.

The Lodge Gardens, Holyport.—With reference to the notes which appeared in THE GARDEN last week on The Lodge, Holyport, Mr. J. B. Westropp, agent for Mr. S. Heilbut, writes that any credit there may be for the state of the gardens is due to the gardeners working

under his superintendence, namely, Mr. W. Stevens (flower garden and plant houses), Mr. G. Camp (fruit trees under glass), and Mr. W. Chamberlain (fruit outdoors and kitchen garden). We are very pleased to publish Mr. Westropp's note, and regret that the names of the gardeners were not mentioned last week.

The Gardeners' Royal Benevolent Institution.—The Rev. W. Wilks, M.A., has kindly forwarded to the above institution the sum of £8 17s. 4d., being amount of collection at the harvest festival services in Shirley Church on the 1st inst.

Ware's tuberous Begonias.—The tuberous Begonias in Messrs. Ware's nursery, Bexley Heath, have made a wonderful display for many weeks past. One large field is planted with them, and as one looks down the central path, some 180 yards long, there are brilliant masses of colour on either side. Altogether the field contains some 200,000 Begonias, in many rich and varied shades of colour, each colour, however, kept strictly to itself. Thus there are large panels of scarlet, yellow, orange, pink, white, and other shades, the singles on the one side and the doubles on the other. As practically every plant is flowering, it can well be imagined what a glorious sight these Begonias make. It is a flower picture as gorgeous as the bulb fields of Holland in spring time. And what is even more remarkable still, every plant was raised from seed sown in January, 1905. The tuberous Begonia is a plant invaluable in the flower garden; it is easily grown, flowers splendidly the first year from seed, and from July until October makes a display that is probably unequalled by any other plant. Among Messrs. Ware's Begonias are some beautiful flowers; they are individually of most attractive form. Some are as perfect in contour as a Water Lily, Rose, or Camellia; in fact, so closely do some of the latest seedling flowers resemble these that they have been named after them. Messrs. T. S. Ware, Limited, whose chief nurseries are at Feltham, Middlesex, have for many years been identified with the improvement of the tuberous Begonia, and in the hands of their specialists it has made enormous advances in colour and form of flower and vigour and floriferousness of plant. The tuberous Begonia as we know it to-day owes not a little of its well-merited popularity to the efforts of Messrs. Ware. Among the choicest varieties at the Bexley Heath Nurseries we may mention the following, all of which are most beautiful flowers: Rhoda Pope, with white shell-like pink-edged petals; King Edward, brilliant scarlet with fimbriated edges; W. L. Ainslie, cream coloured; Mary Pope, one of the best white Begonias; Duchess of Portland, apricot-orange with purple tinge; Queen Alexandra, picotee edged, white and cerise; Jessie Pope, pink; Marchioness of Bute, large white with greenish centre; and White Camellia, a lovely flower.

Inspection of Potatoes at Chancelot.—On the invitation of Mr. Thomas W. Scarlett, and his brother, Mr. James W. Scarlett, a large number of horticulturists and Potato growers and dealers recently met at Chancelot Gardens, Edinburgh, to inspect the Potatoes cultivated there, and to compare notes upon the respective varieties. A number of prominent men had intimated their intention of being present, and although some were unavoidably absent, the company was a large and representative one. Shortly after ten o'clock the inspection began; the crops, first being seen in growth, were afterwards lifted and tested. The number of varieties was large, and a considerable time was spent in examining them. Among them were such varieties as Messrs. Scarlett's Peacemaker, Moneymaker, Pink Blossom, Heather Blossom, Dalmeny Radium, Table Talk, Dalmeny Acme, and many more. After the raising and testing were completed Messrs. Scarlett entertained the company to lunch, and a most interesting discussion ensued.

Coleus Distinction.—This is a very useful variety for colour and sub-tropical bedding. The leaves are of a blackish purple, averaging 5 inches in length and 4 inches in width; very striking, especially at a distance; it is a sturdy grower. At first sight, perhaps, one might be led to think by the look of the plant that it was a coarse grower, but this it certainly is not. Four small beds in front of the Palm house at Kew have attracted considerable attention during the past summer.—A. O.

Sinningia barbata.—Although less showy than many other Gesnerads this is decidedly ornamental and striking, by reason of the singular shape of its blossoms. While the above is the correct name according to botanists (who place the Gloxinias of gardens in the genus *Sinningia*), the name under which it is more frequently met with in nurseries is *Tapeionites Carolinae*. It forms a stout stem a foot or more in height, clothed with oppositely arranged leaves, 8 inches to 9 inches long, deep green on the upper surface, and purplish beneath. The flowers are borne in twos and threes from the axils of the leaves on the upper part of the stem. They are about 2 inches long, the colour being creamy white, with just a suspicion of green. In shape they are tubular, with a very contracted mouth, which is turned abruptly upwards, the middle of the tube being much inflated, thus giving a singular appearance to the flower, which is heightened by the silky hairs that clothe it. The rather large calyx is green tinged with purple. This *Sinningia* does not form a solid tuber after the manner of the garden varieties of *Gloxinia*, hence it should not be dried off during the winter season. An intermediate temperature, as for *Gloxinias*, *Tydas*, &c., suits it well, and a soil made up of equal parts of loam and leaf-mould, with a liberal dash of sand, just meets its requirements.—H. P.

Flowers in a Surrey garden.—From Nuthurst, Chiddingfold, Godalming, Mrs. R. Bullock writes: "I am sending three photographs. One represents a Blush Rambler, and its pretty wreath-like growth is, I think, well shown. The flower borders leading up to my cottage show the Lupin, Snow Queen, and Phloxes. This part of my garden is only two years' growth. It may interest some of your readers to see what can be done in a short time. Five years ago we built our cottage on a bare field." [We wish the photographs were suitable for reproduction. The subject is very interesting.—Ed.]

Flavour in Celery.—Much may be done at this season to promote the growth of Celery and to improve the flavour. I do not advise the use of crude manure. This vegetable requires more moisture than many others; indeed, during growth the plant should never be dry at the roots, and there is no better time to apply fertilisers than during the early autumn months. One that is not in general use is salt. This is a splendid fertiliser at this season, and if mixed with soot in a fresh state it is excellent, not only as food, but to keep away slugs and snails. The best Celery I ever saw was grown entirely with artificial food, given once a fortnight from June to October. Liquid manure, a splendid food, should not be overlooked, but this is dangerous if used too strong. When applying salt it is well to wash it down to the roots; applied several times in this way it is most beneficial. On heavy land less is required. For years I have found fish manure a splendid fertiliser for this plant, and in these days, when horse manure gets scarce, many growers will be obliged to rely more on suitable artificial food.—G. W. S.

Laburnum caramanicum.—Whilst there are numerous varieties and hybrids among the Laburnums, there are only three genuine species belonging to the genus. These are the common *Laburnum* (*L. vulgare*), the "Scotch"

Laburnum (*L. alpinum*), and the one under notice. *L. caramanicum* is as rare a plant in gardens as the other two are common. It is also very distinct from them, being a shrub, having its flowers in erect racemes and blooming in autumn. It is a native of Turkey and Greece, and is not so hardy as the commoner species; it is, however, quite suitable for the Southern counties of England. Its leaves, like those of the other species, consist of three divisions, and are of a rather glaucous hue. The flowers are of a fine golden yellow, and are borne in August and September on slender erect racemes 6 inches or so in length. Flowering as it does when shrubs in bloom are scarce, and being very pretty then, it may be recommended to the notice of lovers of rare shrubs.—W. J. B.

Rose Psyche.—This is a splendid Rose, very free-flowering, and suitable either for training over a pergola or for covering any unsightly building. The flowers are rosy pink in colour, and the growth is vigorous and very hardy. It blooms well in dry seasons, and is also an excellent pillar Rose.—T. B. FIELD.

Arctotis grandis.—In THE GARDEN for the 23rd ult. Mr. J. Higgins says of *Arctotis grandis* that it is a sun-loving plant, but useless



ROSE PSYCHE.

for cutting purposes, as the blooms when cut commence to close gradually, and when closed fail to open again in water. I quite agree that it is a sun-loving plant, but that it is useless for cutting purposes is not my experience. As I write this note I have in front of me a vase with six blooms of this *Arctotis* which are fully expanded. They were cut on Saturday, the 23rd ult., and during the daytime of Saturday, Sunday, and Monday remained fully expanded, but closed during the night. As an experiment to test how long it would remain open after being cut, and without being placed in water, I cut a bloom on Sunday morning at 10.40, and wore it in my coat the whole day; it showed no sign of closing until 4.10 p.m., when it gradually commenced to close. It was not placed in water until 10.45 p.m., when it had completely closed, but at 8.30 a.m. on Monday it was as fully expanded as ever. My experience is that *Arctotis* flowers gathered in the morning close far less readily than those gathered later in the afternoon, but that they fully expand after being placed in water. It is a very rank grower here (near Penzance). I consider it excellent

for decorative purposes, as its light, graceful, star-like flowers, borne on long stalks, lend themselves admirably to decoration.—ALEX. F. CADDY, *Whitecross School, Long Rock, R.S.O., Cornwall.*

THE PASSING OF SUMMER.

(Continued from page 224.)

IN the border along the front of the dining and drawing-rooms this year I have gone in for a back row of *Nicotiana sylvestris*, with a median band of *N. Sanderæ*, and a front edging of *Agathæa cœlestis*. It is not quite a success, principally owing to the straggling, untidy growth of *N. Sanderæ*. The flowers of this novelty, moreover, do not open in sunshine, and the smell is by no means agreeable. Altogether, I agree with former correspondents of THE GARDEN in their objections to it, though allowing that it looks well in a thick line or mass, and that the blooms are far fresher and keep open for a longer time when growing in partial shade.

On the warm side of a trellis fence *Ipomœa rubro-cœrulea* and *Mina lobata* are still in full bloom, and very striking, thanks to the instructions recently given in THE GARDEN as to keeping the young plants growing on in the greenhouse till in full vigour, and even showing flower-buds, and then planting them out as late as the end of June. The *Ipomœa* is worth all the trouble and care that can be lavished upon it; it is a most glorious thing.

I notice *Hibiscus syriacus* (*Althæa frutex*) is a mass of bloom this summer; I never saw the bushes so fine before. Even a small *cœlestis*, not 2 feet high, is simply covered with its pretty deep blue flowers.

Ceanothus is also exceedingly floriferous, and the bushes in my long border, which I cut back rather late in the spring, look as if nothing would ever put a stop to their display.

A few late flowers have appeared on *Choisya ternata*, while *Robinia hispida*, in spite of a somewhat dragged appearance, due to the loss of important branches during the recent wind and rain, is yet quite gay with its lovely pink racemes. What a pity that it should be so cruelly brittle, for it is one of the most glorious of our flowering shrubs. Mine has increased rapidly by suckers, which come up at some little distance from the stem. I have given several of these away, and at the present moment there are half-a-dozen more little ones growing into strong plants in the border.

Cistus florentinus still keeps on, though the few belated blossoms are, if possible, more fugitive than usual. *Clerodendron trichotomum* is flowering nicely for the first time this year; it has been four years growing and making up its great mind to do this. *Rhus Cotinus atropurpurea*, a fine form I had from Mr. Anthony Waterer, has, alas! lost the beautiful pink (not purple) sheen of its panicles, and the foliage has not yet begun to change colour. *Berberis Thunbergii* has, however, already a forecast of its splendid autumn dress; so also has *Plumbago Lar-pentæ*, whose gentian-blue flowers are beginning to fringe the clumps in the border. There are some delightful scarlet berries in happy arrangements on *Cotoneaster horizontalis*. *Clematis davidiana* is unusually fine and luxuriant this year, though it is to be regretted that the flowers are not a bit larger and more conspicuous. *Salvia splendens* has suffered from the recent drought, and is very

late. The tall Phloxes are very nearly over, but the Sunflowers and the Rudbeckias, especially *R. subtomentosa*, are in their glory, and a few cut-back Larkspurs and one or two late-flowering stems of the Aconites are still bright and effective. A small plant of *Aconitum Fischeri* is still in bud; if it blooms habitually as late as this it is likely to prove a decided acquisition.

Various species of *Heliopsis* have been flowering for weeks; I may say months. *H. pitcheriana* is the best I have. Of the Asters, *A. Thompsoni* keeps blooming away gaily; it is one of the earliest and best. Perry's Favourite and *Riverslea* are just coming out nicely, and there is quite a bit of colour on my small "heathery," with more to come I am glad to say. *Caryopteris Mastacanthus* promises well, but is not out yet; I find it requires no end of water in a dry summer. *Helianthus Miss Mellish*, in spite of its aggressive character, seems indispensable; it is just putting forth its handsome flowers. I must also mention that striking-looking *Groundsel*, *Senecio tanguticus*, for, though a terrible spreader, it is wonderfully handsome in all its stages, especially against a background of dark green foliage. There are a few blooms still left on the *Nymphæas* in my small tanks, both red and white, and the small-flowered blue *stellata* in its movable tub keeps up a succession of blossoms. *Campanulas* still linger; both *pyramidalis* and *persicifolia* are yet presentable in places, while some of the dwarf forms, especially *G. F. Wilson*, *Hosti alba*, and *Raineri* are quite worth looking at. The *Zinnias* of the so-called giant strain are truly magnificent this summer; they are the finest blooms I ever saw. *Gladioli* did not do well with me, but there is one noteworthy exception in the case of Baron J. Hulot, a dark violet-blue form, which has been, and is still, remarkably fine.

Salpiglossis have done exceedingly well. Has any grower ever noticed a most unpleasant guano-like smell given off by these plants? After the recent rains mine were simply horrible, and I could hardly go near them. It seemed to be the leaves and stems and not the flowers that emitted this undesirable aroma. I do not notice it in dry weather; it is quite a new thing to me.

Nierembergia rivularis still blossoms sparingly. I have done what I intended (and previously stated in *THE GARDEN*), and have replaced the soil of the border with loamy gravel for the benefit of this charming plant, hoping thereby to induce it to grow in the border as well as it does in the neighbouring gravel path.

My seedlings of *Myosotidium nobile* in a sheltered border under the greenhouse wall look highly promising. I shall cover them later on with a spare frame light for the winter. I am also trying some *Rehmannia angulata* in the same situation, but have not any great hope of success, not knowing enough about this species.

My garden is still full of a splendid weed. I have not the heart to pull it up, the wild *Mignonette* of South Europe, *Reseda alba*. It seeds freely, and comes up everywhere; but it looks so effective and pretty, especially now, when a few pink *Roses* and belated *Opium Poppies* are showing their blooms through its yellow-grey masses, that it seems as if there could not be too much of it.

One word in praise of a well-known annual, *Eutoca viscida*. Unlike its near relative, *Phacelia campanularia*, which lasted

no time with me this summer, it is still in quite respectable bloom in a poor, dry spot, where I thought nothing would survive the drought, and is the admiration of all visitors. I shall certainly use it more freely in future. It would make a lovely carpet for the blue section of a colour border.

Now I really think I have been all round everywhere, and I am sure I have sadly wearied the readers of *THE GARDEN* with such a lot of insignificant trifles. But though it is, admittedly, not a good time of year, and we must all begin to feel that summer is on the wane, yet we like to know what others are doing, what they are going to do, what they are growing, and how it grows, in their gardens at any particular period. This is my excuse for my long-drawn article, and if I have in the smallest degree assisted or interested any of my brother and sister gardeners, I shall be extremely happy, and better able to face that stern sad fact "the passing of summer."

Yalding.

S. G. REID.

JESSAMINE.

THOUGHTFUL I lean against the balustrade,
The first star trembling in the opal west;
And, while the summer hours to twilight fade,
Sweet memories throng my breast.

The scent of Jessamine is in the air,
Its slight dark leaflets climb the terraced wall,
And in the silence I can almost hear
The starry blossoms fall.

Sweet scent, it wafts me back to days no more,
When I was yet a child; that fairy time.
Again I watch the waves beat on the shore,
And listen to their chime.

Our old red house, south-fronted to the sea,
So brightly sunny all the summer through;
The lattice whence we laughing children three
Plucked Jessamine as it grew.

And oh! how sweet to thread the fragile blooms,
Toss high the spicy blossoms in the air,
To fill our hands quite full to deck the rooms,
Or wreath our curling hair.

A spray of Jessamine is in my hand,
I close my eyes and seem to stand once more
Where bright waves filter down the golden sand
And break upon the shore.

R. THOMPSON.

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C. HARMAN PAYNE.

(To be continued.)

TREES AND SHRUBS.

CHOISYA TERNATA.

IN the Southern Counties, and especially near the sea, this lovely flowering shrub does remarkably well in open borders. As a wall plant it is most suitable. I obtained a few cuttings some years ago, which quickly rooted in flower-pots filled with sandy loam. The young plants were put out in a border facing south, and the branches trained to the wall. In a very short time a considerable wall space was covered with rich foliage and fragrant flowers in summer-time. In the Northern Counties the plant requires the protection of a greenhouse or a cool conservatory, and when grown in pots it should be repotted frequently, or at least once each year until a fairly large bush is obtained. Then feeding judiciously and exposing in the open air during August and September will tend to maintain the plant in good condition. For covering low walls, or as bushes on borders facing the south or south-west, *Choisya ternata* does well in the Southern Counties. The plant possesses plenty of fibrous roots, which will soon permeate a light compost, one of leaf-soil, sand, and loam in cases where the soil is heavy. In naturally sandy ground there is no need to add fresh compost. When grown as a wall plant the branches must be made secure to the wall soon after planting is done.

Bournemouth.

AVON.

CUPRESSUS MACROCARPA LUTEA.

THIS beautiful golden form of the Monterey Cypress originated as a seedling in 1889 in the nursery of Messrs. Dickson, Chester, and was distributed by them in 1894. It is quite as vigorous as the type, and is identical in habit. Its rich golden colour lasts the whole year through, and the tips of the shoots are not browned by the sun, as are those of some golden conifers. The accompanying illustration represents a tree planted in the autumn of 1898 in the pinetum here in ordinary loam. When planted the plant was 3 feet high and perhaps half as

much through, the roots being in a 5-inch pot. Since that time it has attained to a height of 21 feet, with a diameter of 8 feet. It has received an annual top-dressing of horse manure.

J. COMBER.

The Gardens, Nymans, Crawley, Sussex.

THE FLOWER GARDEN.

EARLY-FLOWERING CHRYSANTHEMUMS.

AT the time of writing there is no more conspicuous plant in the early-flowering section than one

named *Nina Blick*. The cooler and moister weather of the last month may, no doubt, account for some of the increasing beauty of the flowers that are now fast unfolding. The plants produce in the greatest profusion beautiful Japanese reflexed blossoms of a bronzy orange colour, and those that are partially unfolded are even richer in colour, giving promise of expanding with much scarlet colouring in them. The plant has a bushy habit of growth not exceeding 3 feet in height. Another plant that is pleasing us with its display at the moment is a variety named

Rosie. — The flowers are rather larger than the first-mentioned variety, with recurring florets of good length and breadth, building a large, full flower, even when undisbudded. This plant has a rather spare, though branching habit, and develops a good crop of very handsome flowers. The colour is bronzy terra-cotta, and the plant promises to continue in flower for some time to come.

Goacher's Crimson still ranks very high as a rich bright crimson flower. The flowers are large and full, and the plant need not be disbudded to be seen in ideal condition. It possesses a good habit of growth, and is a persistent bloomer, attaining a height of about 3 feet, or rather less. Of the members of the *Mme. Marie Massé* family the richer-coloured sports call for mention in these notes. Conspicuous among this series is

Horace Martin. — The plants at the time of writing are represented by splendid bushy-like growths, covered with flowers of rich yellow, sometimes suffused with bronze at the base of

the florets. Undisbudded sprays are a picture in themselves.

Crimson Marie Massé is another which is much prized. *Crimson* hardly describes the colour, as the blossoms really are a rich chestnut when they open, and with age pass to a chestnut-bronze. At all periods this is a plant the flowers of which give considerable beauty and effective colouring to the hardy border, and as it partakes of all the good characteristics of the variety last mentioned, this, too, may be regarded as a useful plant for the early displays.

Norbet Pavrez. — This is, without doubt, one of the earliest and one of the best of the Japanese varieties. Although introduced at least ten years ago, little has been heard of this excellent sort.



CUPRESSUS MACROCARPA LUTEA (21 FEET HIGH). PLANTED IN 1898.

It was raised by the late M. Simon Delaux, who did so much for the early-flowering Chrysanthemums in the eighties and nineties. This plant does not exceed 18 inches in height, and develops a branching habit. The flowers are a bronze-salmon, and are particularly effective under artificial light. This plant comes into flower during August, and throughout September it maintains its display. Another good yellow sort is a variety named

Carrie. — This is a plant also distinct in its character, blossoming continuously from late August until October is well advanced. The

reflexed flowers are rich yellow, paling somewhat at the edges. The plant does not exceed 1 foot 9 inches in height, and bears its flowers on a useful length of footstalk. It is not so bushy as we would like to see, but it is astonishing what small pieces will develop into in the course of a season's growth. A plant that was in particularly fine form last season, and has again proved its worth, is

Polly, of sturdy character and growth, about 2 feet in height. The petals are broad, neatly recurving, and are of a deep yellow, freely suffused with bronzy red. This variety comes into flower in September. All the foregoing are of Japanese origin, and the tendency is for these to increase in large numbers, to the exclusion of some of the prettier Pompons, of which too little is known, although many of them have been in commerce for some years. Among the Pompons of bright and rich colour, worthy of mention, is

Mme. Ed. Lefort.—This is a charming variety. The colour is yellow, freely suffused with bright reddish crimson. This variety has given us a very beautiful sport, of a bright canary yellow colour of which little is known. It came before the floral committee of the National Chrysanthemum Society a few years ago, and so far as we are aware is in the hands of few of the specialists. It is generally known as Yellow Lefort, and is the most striking of the Pompon sorts in cultivation at the present time. It partakes of the bushy and free-flowering character of its parent, and flowers during September and early October. A bright little plant is one named

Mrs. E. Stacey.—This is a sport from the well-known Pompon Mr. Selly, and has been described as an apricot-coloured sport from that variety. The plant is not more than about 12 inches to 15 inches in height, developing blossoms of the most delightful form, and flowering profusely throughout September and early October. A new Pompon sent out either last year or the year before is

Orange Pet.—The flowers are rather larger than we would desire, yet their form is so pleasing, and their bronzy orange colour so effective, that it deserves a place in all collections. The plant is free flowering, and attains a height of about 3 feet.

Highgate, N.

D. B. CRANE.

A NEW LILY.

LILIAM YOSHIDAI (HORTUS LEICHTLIN).

THERE is now in flower here (September 20) a striking new Lily, to which I have given the above provisional name. I hope it will be sanctioned by botanists. The seeds came two years ago, *via* Japan, from the Philippines. The seedlings have grown very rapidly, and show a somewhat evergreen character. The three stems shown in the illustration came from a yearling bulb and bore thirteen flowers, which resemble those of *Lilium Brownii*, but are larger. They are very fragrant.

Baden-Baden.

MAX LEICHTLIN.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

ERYTHRINA CRISTA-GALLI.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—With reference to the note by "T. E." on page 187 of THE GARDEN for September 23, on the use of the above-named plant during the present season in Hyde Park, I thoroughly agree that it is worthy of more general culture, being rarely met with in private establishments. As your correspondent says, "it is usually classed as half-hardy," requiring slight protection through severe winters, and succeeding



LILIAM YOSHIDAI.

(From a photograph sent by Max Leichtlin, Baden-Baden.)

very well when left permanently out of doors in the south-west of England. The plant here is growing at the angle of the south-west wall of the dwelling-house, and was very fine during the season now closing. It is about 7 feet high, and at one time bore three dozen spikes of its glorious coral red flowers. In the winter the current year's growths are cut to the base, and it is quite at home without the slightest protection.

CHARLES E. KNIBB.

Lymstone House Gardens, Devon.

SHAKESPEARE'S FLOWERS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In reply to your correspondent S. Lloyd in THE GARDEN of the 9th ult., Long Purples (Orchis mascula), the spikes of the flowers, says Lightfoot, are the Long Purples or Dead-men's Fingers which helped to compose Ophelia's garland of

"Crow Flowers, Nettles, Daisies, and Long Purples
Which lib'ral shepherds give a grosser name,
But our cold maids Dead-men's Fingers call them."

Mary-buds (Marigolds).—Linnæus observes that the flowers of this plant are open from nine in the morning until three in the afternoon, after which hour they close back into the bud, hence Mary-buds. There is an allusion to this property in the poems ascribed to Rowley:

"The Mary-budde that shooteth (shutteth) with the light."

But more fully thus by Shakespeare:

"The Marigold that goes to bed w' th' sun,
And with him rises weeping."

Love-in-Idleness (*Viola tricolor*, Pansy, or Heart's-ease).—Most of the country names of this plant bear strong allusions to love, though Heart's-ease, the name by which it is now generally known, seems to bear no affinity to the tender passion. Buckler's Berry might mean the solitary, roundish, compressed seed of Buckler

Mustard (*Biscutella*), of which there are six species, all of annual duration, except *semper-virens*, the shrubby Buckler Mustard. They are all indigenous throughout the warmer parts of Europe, and flower in panicles of pale yellow during the summer months.

ROBERT W. McHARDY.

West Derby, Liverpool.

OXERA PULCHELLA AT PENDELL COURT.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—When I read your correspondent's ("H. P.") note on *Oxera pulchella* in THE GARDEN, I think he made a slight mistake in the date of its first flowering at Pendell Court. I happened to have charge of the house that it flowered in, along with other houses, under Mr. F. Ross. It flowered in the winter of 1888 very freely on the back wall of the Cattleya house next to the Ceylon house. Mr. Ross also exhibited cut sprays of it at the Royal Horticultural Society.

Abertillery, Mon.

JOHN KENNEDY.

APPLYING WEED KILLERS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Referring to the paragraph on page xii., I have not used the killer supplied by the Boundary Chemical Company, Limited, and therefore cannot speak respecting its effect upon live edgings, such as Box and turf; but the killers I have used, if applied in damp weather or if rain comes immediately after, there would soon be dead edgings to remove. In stable yards or used upon large patches of gravel the effect might not be so noticeable, but even then if rain comes immediately after the application some of the strength is washed down the drains, and the weeds recover. As a rule gardeners who use weed killers regularly generally use them in the spring, March or April, and then one dressing is sufficient for the year.

E. HOEDAY.

OLD-FASHIONED ROSES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—The pages of THE GARDEN often remind one of the progress of the Rose. The introductions of the past few years seem to have been more numerous and beautiful than ever. This, however, should not lead us to lose sight of the old-fashioned Roses. A Rose to which few, if any, nurserymen give prominence, and some even scarcely a place in their catalogues, is the somewhat humble Monthly or China Rose *Hermosa*, yet this is now numbered by the thousand in many a garden having a Rose-loving owner, due almost entirely to the influence of one great enthusiast, Sir James Blythe, Bart., Blythwood, Essex. No freer, more perpetual, or more delicately-coloured Rose suitable for hedges or massing in beds and borders can be named. There is hardly another Rose that in good soil will maintain so long a display of blossom, or, in its proper season, a greater wealth of soft pink colour. It is also easy of cultivation, and hardy. It commences to blossom in June, and continues without intermission until late autumn, and in favourable weather even until Christmas. For an occasional dinner-table decoration it is most telling, and the larger the scheme the better and more effective is its delicate colour, particularly when seen under artificial light.

Another Rose of totally different habit and bearing is the old-fashioned Cabbage or Provence Rose. This is claimed to be one of the oldest and certainly is one of the sweetest scented of Roses. Sir John Wallington, Keevil Manor, near Trowbridge, has done much to keep this treasure of past centuries in the forefront of Roses. In the evening of a summer day, in his delightfully old-fashioned garden, the air is laden with the fragrance of these Roses, which

he grows so largely and so well. His plants, which are as vigorous in growth as it is possible to find, have enjoyed a prolonged period of careful culture at Keevil. How many years it is difficult to estimate, but Sir John Wallington himself can claim to have tended them for no less than eighty years. Frequent propagation by cuttings and close pruning in spring keep the plants in a young and vigorous state, and the quantity of flower in summer time is envied by many hundreds who pay visits to the manor. Treated on exactly similar lines are the Honey-suckles; these are kept quite dwarf by stopping. They flower usually with much freedom and constancy, and have a fragrance such as no other flower can give, both in the garden and in the house.

W. STREUGNELL.

THE ROSE GARDEN.

TEA ROSE LADY ROBERTS.

THE illustration represents flowers of the beautiful, and now well-known, Tea Rose Lady Roberts, which was raised by Messrs. Frank Cant and Co., Braiswick, Colchester. The photograph was taken in the raiser's nursery, but, of course, fails to convey the exquisite apricot colouring which Mr. H. G. Moon depicted so faithfully in the coloured plate given away with the issue of THE GARDEN for January 3, 1903. There is represented the delightful shades of apricot, orange, and cream, but the apricot prevails, and deepens towards the centre of the perfectly-shaped flower. It is a capital exhibition Rose, and the buds are very beautiful, especially early in the year from plants grown under glass.

ROSE PAUL'S SINGLE WHITE.

THIS is one of the most charming of our single Roses, and one that should find a place in every garden where bright green foliage and pure white flowers are in demand at this time of year. It is of a very vigorous habit, free-flowering, and resists mildew. My plants are now (September 20) in perfect health and covered with lovely pure white flowers.

Norwich. T. B. FIELD.

SOME GOOD AUTUMNAL ROSES.

WITH such a galaxy of autumn Roses it is difficult to give the twenty-five best sorts, but I think it will be no easy matter to improve the following list: La France, Augustine Guinoisseau, Caroline Testout, Frau Karl Druschki, Mme. Jules Grolez, General Schablikine, Pharisaer, G. Nabonnand, Peace, Princesse de Sagan, Mme. Antoine Mari, Marie van Houtte, Enchantress, Corallina, Mme. Abel Chatenay, Mme. Berkeley, Grües an Teplitz, Liberty, Cramoisie Supérieure, Perle des Rouges, Mrs. John Laing, Mrs. Sharman Crawford, William Allen Richardson, Mme. Eugene Resal, and Gloire des Polyantha. It would be easy to

add another twenty-five that differ but little from the above in value, but I think those named must take precedence. What our Rose gardens will be like in the near future, with an increasing number of beautiful sorts, it is hard to imagine, but with the gaps filled up with good crimsons and yellows of the Caroline Testout type the autumn Rose garden will almost outvie the summer display.

P.

PRIZES FOR GARDENERS.

SEPTEMBER COMPETITION. — AWARDS.

THE following are the awards: The first prize of four guineas is awarded to Mr. J. R. Taylor, Vicarage Road, Bracknell, Berks; the second to Mr. T. Hayton, Kilkey Court Gardens, Worthington, Wigan; the third to Mr. G. H. Webster, Oak Cottage, Woolton, Liverpool; and the fourth to Mr. J. C. Bennett, Bicton Gardens, East Budleigh, Devon.

Very highly commended are: Mr. Thomas Bunyard, 61, Grena Road, Richmond, Surrey; Mr. Thomas Smith, Louth, Lincs.; Mrs. T. Harrison Myres, Preston, Lancashire; Mr. T. Whysall, 8, Chatham Street, Normanton, Derby; and Mr. E. T. Anderton, Edelweiss, Acock's Green, Worcestershire.

FIRST PRIZE ESSAY ON "WATER GARDENING."

To excel in water gardening one should go straight to Nature for a primary course of

instruction. She offers a free but infallible textbook on the subject, containing many more than a brief 1,000 words. In a glance she teaches that her lakes and ponds are banked by green meadows, with here and there a trespassing aquatic group; that there are no geometrically straight lines, no indiscriminate combinations, no overcrowding, but a simplicity of contour and arrangement which art must rival to achieve success.

For the cultivation of aquatics in ponds, natural or artificial, some protection should be afforded on the north and east sides—a rockery, or raised ground if possible—but on no account must they be in complete shade, for aquatics are sun-loving plants. Still and sun-warmed water from 3 inches to 30 inches is the next requirement. Any greater depths may be reduced by raising mounds or by sinking large tubs filled with good kitchen garden soil. The best time for planting is May, when the water is warm and the plants take kindly to their new surroundings. Propagation also is most successfully performed by division at this time. If the roots are covered with 1 inch of soil it will be sufficient, but they must be pegged firmly down until they have taken hold.

The beautiful hardy hybrid Nymphæas make the first appeal for consideration. In a good season these should bloom continuously from June to October. Here, in the matter of colour, art has indeed been triumphant. From a glorious white, a pale and a deep yellow, all through the shades of delicate flesh and pink, to the richest carmine, red, and vermillion, the hardy Water Lilies range. A hardy blue Lily is still lacking. *Scutifolia* answers the purpose in summer, but it is too frail to winter in the open unless in a tank provided with a warm supply pipe. It will be wise to select the Lilies from two sections, for, although practically alike in most of their requirements, one section thrives better covered with from 18 inches to 24 inches of water, whereas the other prefers only 6 inches or 9 inches.

For the deeper water the following are suitable: *Lucida*, rosy vermillion; *carnea*, flesh; *Mariacea albida*, white; *Chromatella*, clear yellow; *gladstoniana*, white; *tuberosa rosea*, shell pink; and *Robinsoni*, vermillion. For shallow water select from *Aurora*, red; *ellisiana*, bright vermillion; *gloriosa*, coral red; *Laydekeri fulgens*, amaranth; *Laydekeri lilacea*, lilac-rose; *Laydekeri rosea*, rose; *Laydekeri purpurata*, rosy crimson; *igneæ*, carmine; *Froebeli*, wine colour; and *sulphurea* and *sulphurea grandiflora*, sulphur yellow. *Pygmæa alba*, white; and *pygmæa Helvola*, yellow, for very shallow water.

Passing from Nymphæas to other aquatics suitable for the pond itself, it will again be convenient to consider them in two sections—those which spread over the surface of the water, and those taller plants useful for effective groups. Among the former perhaps the best is *Aponogeton distachyon*. This sweet-scented Water Hawthorn, with its waxen, shell-like bracts and conspicuous dark anthers, blooms all through the summer and autumn. Other good subjects for surface-work during the summer are *Ranunculus aquatilis* (the white Water Crows-foot), and *Villarsia nymphæoides*, with its myriads of yellow



TEA ROSE LADY ROBERTS. (Reduced.)

(The flowers were photographed in Messrs. Frank Cant and Co.'s Nursery, Colchester.)

flowers and pretty marbled foliage. Two submerged plants are worthy of notice—the *Hottonia palustris* and *Stratiotes aloides*. The foliage of the Water Violet is entirely submerged, but in early summer its pretty lavender-coloured flowers rise a few inches above the water. *Stratiotes aloides* is an Aloe-like plant which rises in May and June, throws up its white flowers, and then submerges once more.

For aquatic groups only specimens of one kind should be included in each. The greenhouse Arum Lily, which is quite hardy if immersed out of the reach of frost, makes a splendid white group for early summer, just as *Butomus umbellatus* (the Flowering Rush) makes a charming pink one 3 feet to 4 feet above the water. For July the double white-flowered Arrow-head (*Sagittaria japonica plena*) and the blue *Pontederia cordata*, each about 2 feet high, should be chosen. For the later months the gold-striped foliage of the *Acorus japonicus* is elegant, and a group of Bulrushes, either the giant *Scirpus lacustris* or the common Cat's Tail, is always welcome.

But it is on the margins of the ponds, on the marsh and boggy places, that one has fullest scope. One must not be unmindful of the use of grass. It may be frequently carried right to the water's edge, and the aquatic beds and stately groups arranged to the best possible advantage. An artificial bog is easily formed either by partially filling an unnecessary pond, or by hollowing out a space in a low-lying part of the grounds, covering the bottom with clay, replacing the soil, and occasionally turning on a water-pipe.

A series of dwarf, marginal, and bog plants, to flower respectively from May to the end of summer, consists of the varied-coloured Marsh Primulas, the white *Menyanthes trifoliata* (Bog Bean), blue *Myosotis palustris*, yellow *Mimulus luteus*, and *Calla palustris* (the Bog Arum).

When aquatics from 1 foot to 3 feet are required the yellow *Caltha palustris*, orange *Trollius*, Iris *Pseud-acorus variegatus*, and Siberian Irises are all good for spring and early summer. The Japanese Irises are ideal bog plants for July and August, while *Rodgersia podophylla* and *Saxifraga peltata* retain their beautiful bronze foliage till the frost appears.

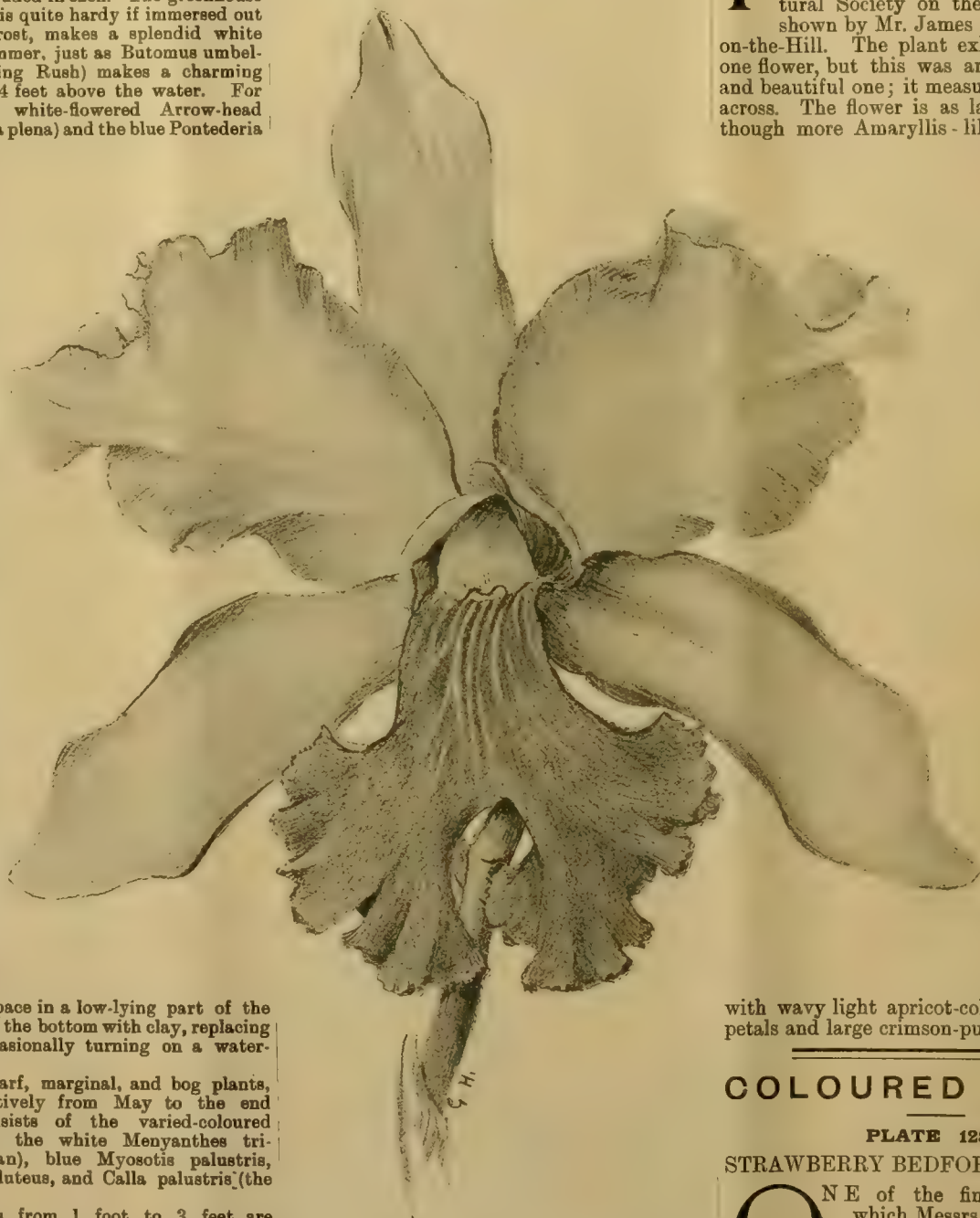
For backgrounds and majestic summer and autumn effects the taller-growing *Spiræas*, the Gunneras with their massive leaves, the *Arundo Donax* (10 feet to 12 feet), the graceful *Helianthus*

orgyalis, and the tropical-looking *Polygonum sachalinense* are all suitable.

A lack of natural facilities arouses the ingenuity of the water gardener. Very beautiful are the effects he can produce with nothing more than an artificial bog and large tubs sunk in the ground with their rims hidden in foliage.

J. R. TAYLOR.

Vicarage Road, Bracknell, Berks.



CATTELEYA IRIS HIS MAJESTY.

(Shown by Messrs. Charlesworth and Co., Heaton, Bradford, at a meeting of the Royal Horticultural Society on the 26th ult., and given a first-class certificate.)

FLOWER BORDER COMPETITION.—We have received a large number of excellent plans in competition for the prizes offered in *THE GARDEN* for the best plans of a border of hardy perennials, and we shall announce the results as soon as possible.

NEW AND RARE PLANTS.

CYRTANTHUS SANGUINEUS GLAUCOPHYLLUS.

IN the illustration on page 241 is shown the glaucous-leaved variety of *Cyrtanthus sanguineus*, which was given an award of merit by the Royal Horticultural Society on the 26th ult., when shown by Mr. James O'Brien, Harrow-on-the-Hill. The plant exhibited had only one flower, but this was an unusually large and beautiful one; it measured over 3 inches across. The flower is as large as a *Vallota*, though more *Amaryllis*-like in form; the colour is scarlet, with a shading of crimson.

CATTELEYA IRIS HIS MAJESTY.

MANY forms of *Cattleya* Iris, varying considerably in colour, have been exhibited by Messrs. Charlesworth and Co., Heaton, Bradford, Yorks, but that which gained a first-class certificate from the Royal Horticultural Society's Orchid committee on the 26th ult. is the finest yet shown. The parents of the hybrid *Cattleya* Iris are *C. aurea* and *C. bicolor*. His Majesty is a very fine variety,

with wavy light apricot-coloured sepals and petals and large crimson-purple frilled lip.

COLOURED PLATE.

PLATE 1284.

STRAWBERRY BEDFORD CHAMPION.

ONE of the finest Strawberries which Messrs. Laxton Brothers, Bedford, have raised is Bedford Champion, and they have raised a large number of new varieties. It is the result of a secondary cross. In the first place, Scarlet Queen crossed with John Ruskin produced an unnamed seedling, and Noble crossed with Sir Joseph Paxton also gave rise to an unnamed seedling. By intercrossing these two seedlings Strawberry Bedford Champion resulted. It therefore contains the blood of four excellent varieties,



STRAWBERRY BEDFORD CHAMPION.

and it is to this fact that its exceptional vigour and the large size of its fruits must be attributed. It is undoubtedly the largest Strawberry yet introduced to commerce. The fruit is often 2oz. in weight, with a circumference of 6 inches; the colour of the skin is a bright scarlet, the flesh of the fruit being white; the fruit is broadly conical, sweet, and luscious in flavour, and borne on enormous trusses of great size and vigour. The whole plant, in fact, stands out most distinctly in this respect, the foliage being equally robust, with dark green leathery leaves. The distinct and vigorous character of this variety stamps it as being a Strawberry that will grow anywhere; it will prove to be a notable addition to the list of best varieties. It is also a good forcing variety. With such excellent attributes this Strawberry will no doubt soon be widely planted, and we believe it will be appreciated wherever it is grown.

JOTTINGS ABOUT ROSES.

(Continued from page 209.)

MME. CHARLES MONNIER. -- This is growing well with me, but I have not had it long enough to give a definite opinion as to its hardiness. A half-climber, with superb shining foliage. Wood purplish green closely set with thorns. Pointed buds opening into very large globular flowers, colour rosy flesh with yellow centre suffused with salmon and orange. Has been splendidly shown in pots by Messrs. William Paul and Son, Waltham Cross, where I first saw it. Will make a fine pillar Rose outdoors if it is hardy enough.

Prince de Bulgarie.—I received this from Mr. George Paul in 1903 with a strong recommendation, and now I certainly consider it to be one of the very finest of our modern Hybrid Teas. We have had quite a number of varieties with the title of "Prince," and the late Rev. Foster-Mellicar discussing one of these once said that it gave a good bloom occasionally, but so rarely that he looked upon it more as a pretender than a prince. There is not the slightest chance of this accusation being levelled at Prince de Bulgarie for its prodigality of good blooms is extraordinary. The flowers are variable and of exquisite colouring, the outer petals silvery flesh, centre salmon shaded with rose and yellow. Wood erect, pale green, glaucous, and closely set with thorns. Foliage dark green, well glazed, and not prone to mildew. This was one of the few varieties that passed unscathed through the severe frosts of last November, so that I look upon it as distinctly hardy.

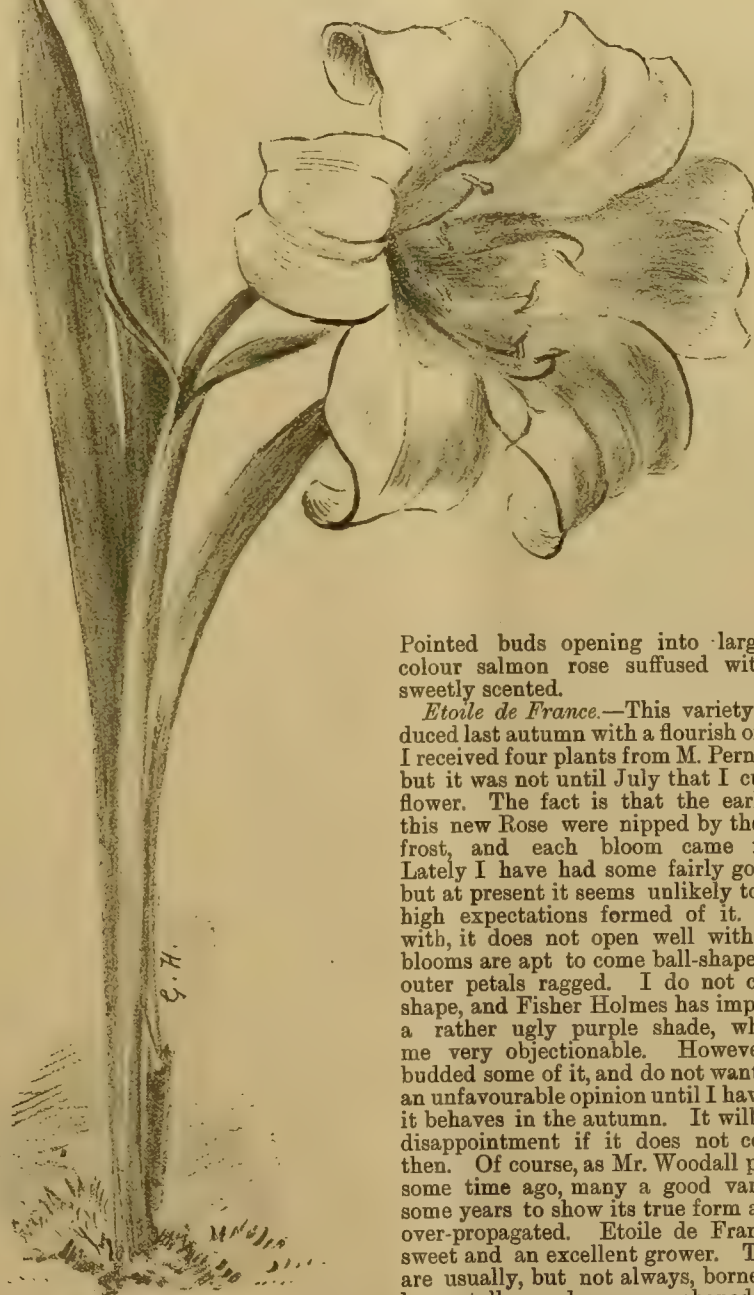
M. Paul Lédé.—I was glad to see a note in THE GARDEN (page 58) eulogising this fine variety, as it has proved its worth with me after several years' trial. My first acquaintance with it was at Cheshunt in 1903, and I drew attention to it in THE GARDEN for July 11 of that year. A good bushy grower, with shiny green foliage not prone to mildew, and pretty hardy. Flowers cup shaped and of large size, sweetly scented and exquisite in bud. Colour most

variable, generally a blending of rose, peach, and buff tints. Good in all weathers.

Sénateur Belle.—In selecting twelve varieties from this list I should certainly include this delightful Rose on account of its distinct colour. The growth and habit, too, are all that can be desired, and the flowers stand heat and wet well. Wood glaucous, erect and thorny; foliage dark green, well glazed and not subject

to mildew. Buds charming in colour, almost wholly orange, with a few of the outer petals tinged with rosy flesh. When almost fully expanded the outer petals reflex like those of Mme. Abel Chatenay and become paler, while the centre petals retain their salmon and orange colouring until the flower shows an "eye."

M. Joseph Hill.—Already one can see at a glance that this is a noble Rose, and despite the extreme heat and the prevalence of thrips it is doing remarkably well. Habit of growth very strong, making shoots 2 feet in length—one of these is now bearing fourteen buds and flowers. Bold leafage, shiny and showing no evidence of mildew at present.



Pointed buds opening into large flowers, colour salmon rose suffused with yellow, sweetly scented.

Etoile de France.—This variety was introduced last autumn with a flourish of trumpets. I received four plants from M. Pernet-Ducher, but it was not until July that I cut a decent flower. The fact is that the early buds of this new Rose were nipped by the late May frost, and each bloom came misshapen. Lately I have had some fairly good blooms, but at present it seems unlikely to fulfil the high expectations formed of it. To begin with, it does not open well with me. The blooms are apt to come ball-shaped, and the outer petals ragged. I do not care for its shape, and Fisher Holmes has imparted to it a rather ugly purple shade, which is to me very objectionable. However, I have budded some of it, and do not want to express an unfavourable opinion until I have seen how it behaves in the autumn. It will be a great disappointment if it does not come better then. Of course, as Mr. Woodall pointed out some time ago, many a good variety takes some years to show its true form after being over-propagated. *Etoile de France* is very sweet and an excellent grower. The flowers are usually, but not always, borne singly on long stalks and are cup-shaped. Foliage good, but rather addicted to mildew.

ARTHUR GOODWIN.

The Elms, Kidderminster.
(To be continued.)

CYRANTHUS SANGUINEUS GLAUCOPHYLLUS.
(Shown by Mr. J. O'Brien, Harrow-on-the-Hill, at a recent meeting of the Royal Horticultural Society, and given an award of merit.)

GARDENING FOR BEGINNERS.

SIMPLE HINTS.

IT takes years to make an interesting and beautiful garden, even when the site to be worked upon is not large. Very few garden-makers live long enough to realise the completion of their work. It takes much time to furnish a garden with beautiful tree and shrub growth, and even experienced men make mistakes in selecting and arranging their materials, especially if the beaten track is left. A gardener—I am using the term in its fullest sense—ought to be something more than a mere copyist, except, it may be, from Nature. The study of Nature does expand and broaden our ideas, but even Nature, as Shakespeare has it, may be improved, or, in other words, mended. No one should attempt to make a garden until the ground and its surroundings have been thoroughly studied. There is a certain fitness of things which, if rightly grasped, may save expense and trouble in the future.

Aims and Objects.—As soon as a person has bought or built his or her house, he or she should decide what it is they really want. Garden-making is very interesting. It is pleasant to see the schemes we have created or started developing around us, but we cannot have everything in a small space. Still, much more may be done than is generally attempted. It is mainly a question of making the most of things, filling every inch of space with something useful or beautiful. And there is no reason why the useful should not also be beautiful. Vegetables, if any are grown, will probably be relegated to a spot furthest from the house, separated from it by a division line of Roses or fruit trees. A hedge of Roses or even fruit trees or Nuts may be admissible if the place is large enough, and a Yew or Holly hedge, when well kept, gives the place an old-world character, which in a few years will possess a charm of its own. The most interesting gardens are often made bit by bit as it were, but the main features, especially as regards trees and shrubs, should be settled before much of the work is done, and the site thoroughly prepared by trenching and, if necessary, manuring.

The Tennis Lawn.—In some country villages tennis players form themselves into a club, hire a field, and have it properly laid out for tennis and other games, such as hockey and croquet. When a tennis court or lawn has to be made in a small or even a moderate-sized garden, there is not much work for the garden-maker to do. I have seen tennis lawns made in gardens so small that the only gardening possible was confined to a strip round the house and a narrow margin round the lawn. When the wire netting was fixed up to stop the balls the place looked more like a poultry yard than a garden. If there must be a tennis lawn in small gardens, drop them below the surface like a large panel, and surround the spot with pillar or pole Roses. If necessary, the lawn should be drained to carry off the surface water, and whether turf is laid or grass seeds sown the ground should be deeply worked and manured, for the constant mowing which is insisted on by tennis players will soon wear out a lawn which has not been properly laid down, and, even when well done at first, top-dressing should frequently be given to keep a close, strong turf that will stand the wear and tear of play.

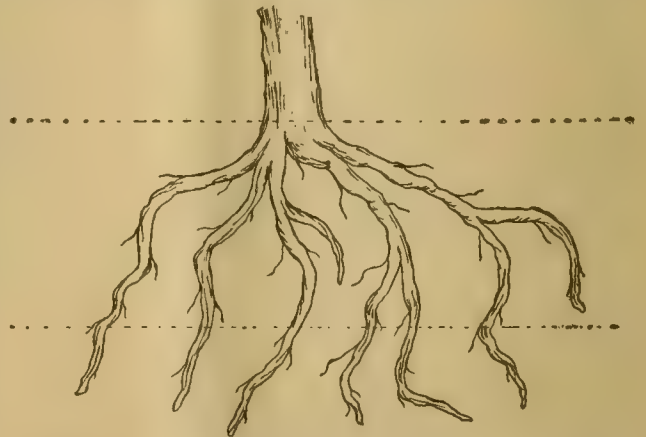
Trees and Shrubs.—To shut out an unsightly object or to prevent being overlooked sometimes screens of lattice-work are erected, but I dislike these things; they remind us so much of the aviary or poultry yard, and the wind is always blowing them down. They are also expensive to

keep in condition. When a screen is really necessary it is usually wanted in a hurry, and something of rapid growth is desired. There is nothing better than a row of Canadian Poplars close to the boundary, as they will only remain until better things can be got to take their place. Poplars will make a screen at once, and may be cut back annually. Inside this Poplar wall we plant anything we wish in a picturesque fashion. At the back near the Poplars may be planted, to take the first brunt of the wind, Austrian Pines. A blind of this character would shelter the seaside garden or any other bleak position. Inside some of the following trees and shrubs may be planted, according to the size of the place. In a small garden we do not want a shrubbery; we only want a shelter from cold winds and prying eyes, and a background for the beautiful flowers we intend to plant inside. Therefore we do not want to imitate the jerry-builder and stick in all the Laurels and Privets which can be had cheaply from the clearings of the nurseries. For standards we may have the mop-headed *Acacia inermis*, *A. bessoniana*, *Ailanthus glandulosa*, Almonds, Silver Maple, *Acer Negundo variegatum*, Weeping Silver Birch (Young's), Copper Beech, double-blossomed Cherry, *Catalpa syriacifolia*, Thorns (scarlet and pink), and Laburnums. Weeping trees may include Weeping Ash, Cut-leaved Weeping Birch, Weeping Siberian Crab, Broad-leaved Weeping Elm, *Gleditsia excelsa pendula*, and White Weeping Lime. If a Lily pond could be made, or if water were near by, Weeping Willows could be planted. A few conifers on the lawn or in the margin of the border projecting on the lawn give a picturesqueness and warmth in winter which nothing else can supply, but, unless we are sure of the ground, only the hardiest things should be planted—the different varieties of Silver Fir, especially *Abies Pinsapo* and *A. nordmanniana*, but most of the Silver Firs will succeed away from the smoke. The only conifers which succeed in town gardens are the Cedars of Lebanon and *Cedrus atlantica*. These are among the most beautiful trees we can plant, and the hardiest. Of course, whatever is planted the site must be deepened and improved. Merely placing the roots of a tree or shrub in a hole is not planting it.—H.

Root-pruning is an important garden work that is imperfectly understood by many amateurs; in fact, it is difficult to persuade some that cutting the roots can do any good to the tree. Nevertheless, it is a fact that with fruit trees that are making a lot of gross, vigorous shoots, and do not produce fruit, the best way to make them fruitful is to root-prune. Young, newly-planted fruit trees are usually the worst offenders in this respect, and Plums, perhaps, are the worst of all. They make long, strong shoots that do not bear any flowers the following spring, and the short-jointed growth of moderate vigour that the experienced cultivator always aims at obtaining is nowhere to be seen. Young trees, however, are not the sole offenders. Older trees that are planted in rich soil or receive too liberal applications of liquid manure or too rich top-dressings often make gross, unfruitful shoots that nothing

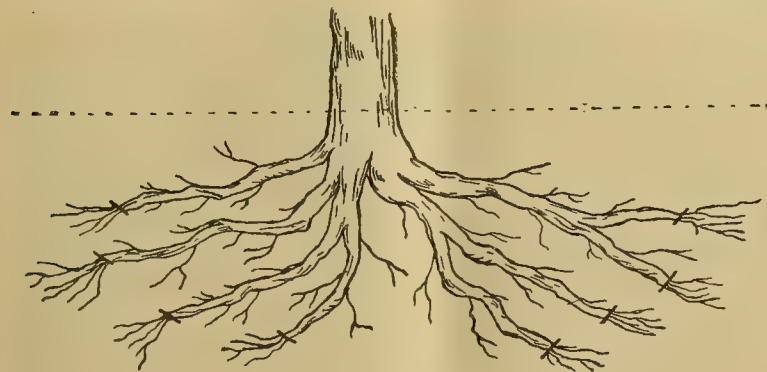
will get rid of but root-pruning. It is of no use to cut back the offending growths, for that only makes matters worse—still stronger shoots will result. If they are touched with the knife at all they must be clean cut out. When root-pruning is being carried out it will usually be found that some strong, "tap" roots, as they are called, have made their way straight down. These are responsible for the gross shoots above ground, and must be pruned.

How to Root-prune.—The first thing to do is to open a trench some 4 feet away from the stem of the tree; if the tree is a bush or pyramid growing in the open the trench must be made all round the stem. A distance of 4 feet from the latter is sufficient in the case of young trees, but when the specimen to be root-pruned has been established for some years in its present position, and has developed into a large tree, then it would be unwise to dig a trench around it only 4 feet from the stem; the trench should be at least 6 feet away. The same remarks would apply in the case of old and large wall fruit trees. In that case also the trench should not be made nearer the stem than 6 feet. The trench should be made 2 feet deep, or rather more if the tree is



ROOT-PRUNING: SHOWING ROOTS DOWN IN BAD SOIL. BELOW THE SECOND DOTTED LINE REPRESENTS SUBSOIL.

old, and wide enough to allow one to work comfortably. Then with a fork draw away the soil from the roots into the trench, more particularly from beneath, so as to find all the gross, fibreless roots which are causing the mischief. When these are found, cut them off with a sharp knife; this will cause small fibrous roots to form. In doing the work take great care not to damage the thin fibrous roots, for they chiefly supply the tree with nourishment. Continue the work until it is thought the worst roots have been checked. As fresh roots are bared, cover them lightly with soil or mats, so as to prevent their drying and shrivelling, which they will soon do if left exposed. When rearranging the roots, alter the course of the thick ones which were shortened, placing them in a horizontal position so as to prevent their going straight down again, probably into bad soil. Cover the roots carefully in several layers, all placed horizontally, and make each layer firm. It is important to make the soil firm as rearranging the roots goes on, otherwise it will sink and carry the roots down with it. Carefully placing the roots within reasonable distance of the surface, and in a horizontal position or slightly slanting downwards, is



ROOT-PRUNING: MARKS SHOW HOW TO CUT ENDS OF ROOTS.

one of the most important items to be carried out when root-pruning. Garden fruit trees are fruitful only when they have an abundance of fibrous roots near the surface. Orchard fruit trees grafted on stronger-rooting stocks are better able to look after themselves.

A Beautiful Hedge.—For an ornamental deciduous hedge almost anywhere there is nothing to surpass, if to equal, the Japan Quince (*Cydonia japonica*). There are a number of deciduous plants that make pretty hedges, but the most of them are difficult to form and troublesome to keep in good shape and order. The *Cydonia* is almost entirely free from these objections, provided only that young plants be used to start with. What a lovely sight it is when in bloom, and how picturesque at all other times! Those who have a fancy for more than one colour can use the rose and white-coloured to mix with the crimson. There is this further to be said in favour of the Japan Quince, that scarcely any manner of neglect can spoil its beauty. It can be easily and quickly brought into shape again. It will always retain its beauty, though it may lose its primness by neglect. No amount of shearing, however, can give it that hard, solid surface so common to evergreen hedges.

GARDENING OF THE WEEK.

FLOWER GARDEN.

TUBEROUS BEGONIAS should be left in the ground until the tops are blackened by frost, both for the sake of the bloom they produce and for the better maturing of the tubers. Up to the present they are very bright and showy, the late dry sunny weather having materially prolonged the display. Choose a dry day for lifting. Avoid wrenching off any tops still adhering to the tubers, but endeavour to retain them as long as possible by slow drying and harvesting, spreading them out thinly in the sun on any open trellising available, or in a light airy shed, turning over occasionally, and covering those in the open with mats at night to protect from dew and frost, and to ward off rain at any time. Those from which the tops had dropped at lifting should be spread out by themselves, and they will need less drying, and thus be fit for storing before the others are ready. When harvested and dry store for the winter by placing in boxes or trays, working in amongst them some fine sand and leaf-mould, marking each tray with the number of tubers it contains and the sizes. When all are sorted, counted, and boxed, stack them up in a vinery or other house at rest; or in a dry frost-proof shed, where they may safely remain until the time comes round for starting them in the spring. Make sure the situation is free from drip or excessive moisture in any form.

STRONG CARNATION LAYERS are by now well rooted, and fit for planting out in their permanent quarters. Where wireworms abound the greatest care must be exercised in the preparation of the soil, for it is almost useless planting Carnations in wireworm-infested soil. In very bad cases, and where it can be done, it is good policy, and a paying one in the end, to excavate the infested soil and replace with fresh, as free from the enemy as it is possible to get it. Good holding loam, well charged with lime and enriched with old mellow cow manure, or a reliable and suitable artificial manure, should grow satisfactory plants, and produce plentiful bloom. Weakly or badly rooted layers

glorious display of bloom. They produce seed freely, and, where existing, should be gone over and the ripe ones gathered at once before frost bursts open the pods and scatters the seeds broadcast. It is advisable to raise some plants of these almost annually, for as a rule they are not long-lived, and young plants generally stand the winter best. Most of the species of

VERONICAS are also very free seeders; self-sown seedlings appear in all kinds of places and positions. Where numbers are wanted it is an easy way of obtaining a stock.

The Gardens, Tan-y-bwlch, North Wales.

INDOOR GARDEN.

THE WINTERING OF BULBS, TUBERS, &c., has a great deal to do with their successful cultivation. When beginning to die down they become somewhat unsightly, and are often neglected or forgotten altogether. To obtain good results this will not do. They may be stored away in the pots in which they have been grown during the summer and knocked out later on when there is not so much pressing work. If storing room is scarce knock them out of the pots, shaking off the soil, and place fairly close in sand, Cocoanut fibre, or other suitable material. *Gloxinias*, *Caladiums*, *Gesneras*, &c., should not be stored in a temperature below 50° Fahr. Tuberous *Begonias* and *Cannas* will be better in a temperature some 10° lower. Avoid damp, dry, and draughty positions.

CANNAS.—In a warm, moist house it is fairly easy to obtain these in flower all the year round. Those that have flowered and been given a short period of rest can be started into growth for flowering in midwinter. Strong side shoots may also be removed from the flowering plants. Placed in a close propagating frame in small pots they soon make good plants. Give those coming into flower plenty of stimulants.

RICHARDIA ETHIOPICA for flowering at Christmas must be given a light position in an intermediate house. Leave a number of the plants in the frames to come on gradually for flowering at Easter. Some of the varieties are perpetual flowering, so that with very little trouble good blooms can be cut all the year round. Plenty of water is necessary, and liberal feeding when the pots are full of roots. To those on the look-out for novel plants, which might also be termed curiosities, I would recommend them to grow two plants of the same natural order *Aroideae*, namely, the *Black Arum*, *Arum palaestinum* (sanctum), and *Amorphophallus Rivieri*, sometimes called the Monarch of the East. The latter plant is worth growing for the foliage alone, if it had no flower. When fully grown it is very much the shape of an umbrella. It flowers before the leaf appears. They both thrive under cool greenhouse treatment, but if a little warmth can be given so much the better. Use a rich soil consisting of fibrous loam, leaf-mould, well-decayed manure, and sand. Order the corns now as they are, or soon will be, dormant.

PRIMULA OBCONICA.—Plants from seed sown in spring are coming into flower. A few of the stronger ones may be potted on, removing all the flower-buds, till they are established in the new soil. Help the remainder with weak manure water. Give them a light position in the house.

ANTHURUM SCHERZERIANUM having finished its growth will be better at the cool end of the stove. Reduce the supply of water a little.

POINSETTAS.—A few plants for early flowering can be given a little more heat. Allow the plants ample room, and keep near to the roof glass. A little weak liquid or artificial manure will be beneficial.

The summer cloud or whitewash remaining on the houses can be washed off, and blinds not required to give additional protection to the houses on cold windy nights may be dried and put away for the winter.

Royal Botanic Gardens, Kew.

A. OSBORN.

ORCHIDS.

At this time of the year make sure that the heating apparatus is in good working order. So far little fire-heat has been required, but as sudden changes in the outside temperature are liable to occur now, we should have the means at command to counteract the influence of unusually cold weather. It is a common occurrence during October

should be potted up and kept in cold pits over the winter, covering with lights only to throw off snow and rain and for protecting in very severe weather. Keep a sharp look-out for field mice, for they are most destructive among Carnations, especially during hard weather. The most satisfactory method of raising a stock of the various kinds of BROOM AND GORSE is from seeds, and, if they do not in some cases come absolutely true to name, the loss is compensated for by more shades of colouring, robust plants, and a more

for moderate sharp frosts to come upon us quite suddenly, especially early in the morning, and unless those in charge are able to make a correct forecast of the fluctuations of the external temperature, which is very difficult at this season, the temperatures of the various houses will be sure to fall several degrees below the proper standard. On those mornings no water must be afforded, nor should damping be allowed until the required temperatures are reached. A cold, moist atmosphere is one of the chief causes of spot and disease in such delicate species as *Phalaenopsis*, *Aërides*, *Angræcums*, *Calanthes*, *Phaius*, &c., and many plants that are now making new leaves and growths. Therefore a great deal depends on carefully-managed night temperatures, and it is the safest plan in every department to err a trifle on the warm side at night for the next few weeks than run the risk of having low temperatures in the morning. When the East Indian, Cattleya, and intermediate houses are damped down in the afternoon the warmth in the hot-water pipes should be increased a little, so that as the temperature outside declines as the evening advances, the thermometer inside may be easily kept at its proper figure without having to drive the fires. By thus keeping a little extra heat in the pipes at night more air may be admitted. Should the temperatures be a degree or two too high when finishing up for the night, no harm will be done providing sufficient air is admitted through the ventilators to balance it.

TEMPERATURES.—The following should be the night temperatures for the next few weeks: East Indian house, 70° to 75°; Cattleya, 65° to 70°; Mexican and intermediate houses, about 60°. The higher readings should be maintained only when the external air is about 45°, when below 40° the lower ones are to be preferred; but always have sufficient heat in the pipes to allow a fall of several degrees by the morning. The *Odontoglossum* house may be kept at 50° to 55°, or warmer if no fire-heat is required and the bottom ventilators are wide open; but in the event of cold weather when artificial heat becomes necessary, the temperature may fluctuate between 50° and 55°, allowing it to drop to 50° by the morning. In all Orchid collections the destruction of numerous

INSECT PESTS which attack the plants is constantly called for, and now that very little shading is needed on the houses, a few days bright sunshine will assist black and yellow thrips to increase, and unless these insects are quickly eradicated many valuable plants will be injured. There are several vaporising compounds and insecticides frequently advertised in THE GARDEN which are very efficacious in destroying these insects. With the increase of fire-heat cockroaches sometimes become troublesome and do a great amount of damage. They are extremely fond of the points of the roots of such plants as *Aërides*, *Vandas*, *Saccolabiums*, *Renantheras*, *Angræcums*, *Phalaenopsis*, &c. Traps and various poisons should be frequently used for their destruction. In the cool house it is advisable to look carefully over the newly-potted plants each evening for slugs which may have been brought in with the sphagnum moss used in the potting compost. Also use for traps pieces of Potato, young Lettuce leaves, Bran on pieces of brown paper, &c.

Burford Gardens, Dorking.

W. H. WHITE.

FRUIT GARDEN.

PINE-APPLES.—Plants upon which the fruits are ripening should be placed in a house by themselves where the atmosphere can be kept warm and dry. Later fruits may be assisted to swell by keeping a moist, buoyant atmosphere. The temperature at night should not fall below 70°. During the day it may rise to 80° or 85°. A little air should be admitted whenever outside conditions will permit. Succession plants should now be almost at a standstill; they should not be given the least encouragement to make growth. The night temperature may be reduced to 60° or even lower on very cold nights. Keep the bottom-heat at about 70°, and take care it does not fluctuate, or the plants may be excited into growth or throw up their fruits prematurely. At this time of year the greatest care will be needed in supplying water at the roots. Each plant must be carefully examined before water is given. The soil should be rather on the dry side than otherwise. Suckers will need careful management till the growing season is again at hand. Let the plants have plenty of room, and keep the roof-lights clean. Keep the temperature only moderately warm, admitting air at the top of the pit when favourable. Very little water will be needed, but they should not be allowed to suffer through neglect in this matter.

POT VINES.—The canes which have been grown this season for supplying the earliest Grapes next year should now be ripe enough to allow of their being cut back to the desired length. This must be determined to some extent by the strength of the canes, and they should be all as much as possible the same length. Canes of medium strength with short-jointed, well-ripened wood will give the best results. If the Vines are to be started at the beginning of November, they should be cleaned and placed in shelter from heavy rains. Remove some of the surface-soil, and top-dress with good fibrous loam which has been enriched with Bentley's Vine Manure, wood ashes, and mortar rubble.

LATE VINES.—Late Grapes which are expected to keep till the new year should now be quite ripe. Keep the atmosphere dry and the temperature regular at about 50° or 55° at night, according to the outside conditions. Always keep a little air both at the top and bottom of the house, with the pipes slightly warmed to prevent the atmosphere becoming condensed. Should it be necessary to water the borders, choose a fine morning for the occasion, so that plenty of air can be admitted to dry the atmosphere before evening. Remove all lateral growths, so that air can pass freely about the foliage, thus

preventing moisture condensing on the leaves. Avoid, if possible, placing the plants in pots in the vinery, especially on the borders. This is not only injurious to the present crop, but it is also detrimental to the general welfare of the Vines. I am aware that in gardens with limited convenience it cannot be avoided, but at least some discrimination should be used, both in the distribution and the watering of plants which are placed in vineries. Sour, stagnant borders are a direct result of carelessness in this matter, and, as is well known, shanking and mildew are brought about through this cause.

E. HARRISS.

Fruit Department, Royal Gardens, Windsor.

KITCHEN GARDEN.

CABBAGES.—Complete the planting out of young Cabbages as soon as possible, irrespective of cultivation, in nursery rows, or in their permanent quarters. Where large supplies are required, a second plantation will succeed those planted some time ago, and owing to the plants not being quite so large they will probably stand the rigours of winter better should it prove a cold one. As soon as the plants in the first batch have become stiff and erect, run the Dutch hoe down the rows and between the plants occasionally, but only lightly, merely to break the surface, which is apt to become caked after heavy rains. A good dusting of soot now and again will go a long way to put a dark green hue on the leaves and keep slimy pests at bay.

CAULIFLOWERS.—If young Cauliflowers have not yet been planted in frames or hand-lights where they are to be wintered, this should be attended to without further delay, so that they may get fairly hold of the soil in their new quarters before the days become shorter. By having the plants well established in their new abode at this date, or as soon afterwards as possible, the percentage of losses will be small.

WINTER VEGETABLE PLOTS.—A thorough examination of vegetable quarters should be made for weeds. They must be sought for among Brussels Sprouts, Broccoli, &c. No matter how often the plots have been hoed, weeds are apt to be missed, and if allowed to remain will give trouble at some future time, and frequently at a time when there is, perhaps, other work demanding attention. Late-planted vegetables are still growing, and may be greatly aided by running the Dutch hoe up between the rows when the ground is in good order.

CELERY.—Earth up Celery whenever there is a favourable opportunity, such as after a few dry days; then the soil is in condition for breaking up into a fine mould for placing firmly around the Celery plants, within an inch or so of the hearts. In moulding up Celery for the last time, it is advisable to form the mound in the shape of a crown or arch, and make it fairly firm, so as to throw off as much rain as possible. If the top part of the Celery trench is left the least hollow in the centre it holds moisture, and more particularly so if the soil is of a retentive nature, with the result that the hearts of the Celery plants are spoilt.

POTATOES.—Late crops of Potatoes in the kitchen garden are now quite ripe, and should be lifted at once to prevent good tubers being infected with disease should it be present. Slugs are apt to prey upon them at this season, so that the sooner the Potatoes are removed from their enemies the better. Let the tubers be spread out on the surface of the Potato plot during the early part of the day, when in favourable circumstances they should be dry, and in proper condition for storing away towards evening.

LETTUCES have grown amazingly during the past three weeks or so owing to the warm moist weather that has prevailed. Where a few cold frames can be spared it would be advisable to place these over some of the best of the Lettuce plants, as they are liable to be spoilt with rain storms later on. Abundance of air must be admitted on all favourable occasions.

J. JEFFREY.

The Gardens, St. Mary's Isle, Kirkcudbright.

THE FRUIT GARDEN.

APPLE LADY SUDELEY.

FOR early dessert use few Apples give a better return than this, and, in addition, it will grow and crop where others fail. This season, when many trees are almost barren, Lady Sudeley is bearing well, and no matter how grown—either as a bush or dwarf standard—the crop is all that one could wish for. I am aware that the fruits are not valuable for storing, but I should add that if gathered before it is dead ripe it will keep sound for several weeks. There are few very early Apples that do this, and, when its free-cropping and other good qualities are considered, the variety named is most valuable. A few trees grown in cordon form give splendid early dishes. This year we gathered ripe fruits in July from a south-west wall, but our heaviest crops are from low or dwarf standard trees. They are not much pruned, and, grown in an open position, give splendid fruits and

always crop. The fruits are borne freely on the points of the shoots, and, if gathered and eaten from the trees, the flesh is excellent, being soft, juicy, and with a rich aroma.

G. WYTHES.

PEAR CHARLES ERNEST.

To many this Pear will probably be unfamiliar, for it is one of comparatively recent introduction. It received an award of merit from the fruit committee of the Royal Horticultural Society in December, 1900. The fruit is large and handsome, and on the sunny side the yellowish skin is marked with crimson; the flesh is juicy and of first-rate flavour. It is in season from October to December. The tree forms a good pyramid, espalier, or cordon. It fruits well on the Quince stock.

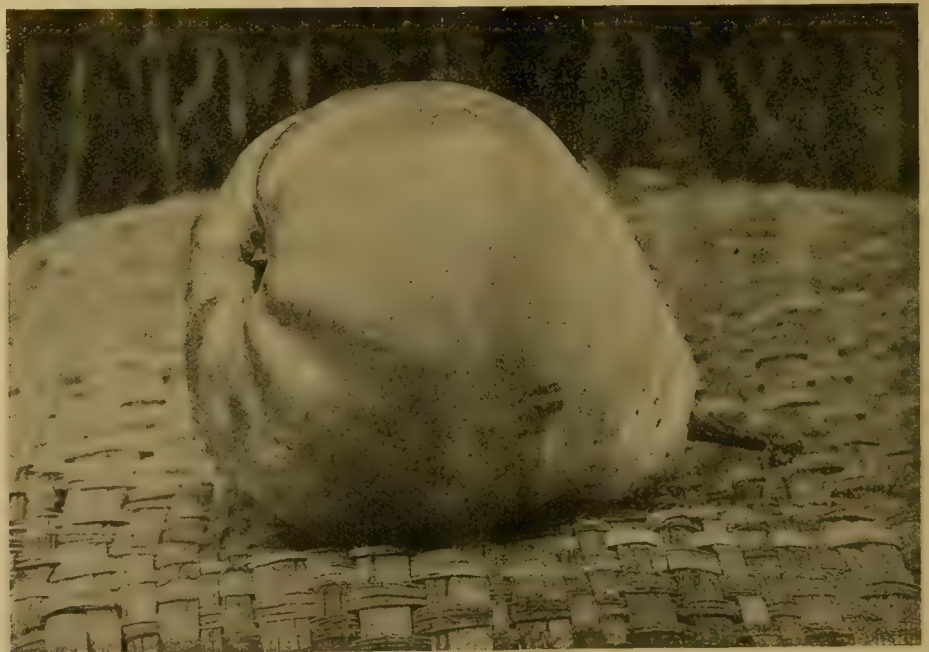
STOVE & GREENHOUSE.

BULBS AND SEEDS TO FLOWER IN COOL GREENHOUSE IN WINTER.

[In reply to C. M. Wright.]

THE following selection, if carefully grown, should afford a succession of bright and interesting flowers during the greater portion of winter and through early spring. The bulbs should be purchased as early as possible and immediately potted; 5-inch and 6-inch pots are a convenient size to grow most bulbs in, and how many to place in a pot must entirely depend on the size of the bulbs. Of early-flowering Hyacinths, for instance, three bulbs should be placed in a 6-inch pot, but later varieties which have larger bulbs should be placed singly in 5-inch or 6-inch pots, according to size. The same may be said of Tulips, Narcissus, &c.; indeed, of all bulbs. We can only here indicate the sorts of bulbs suitable for the purpose named, and would recommend our correspondent to consult one of the many excellent bulb catalogues advertised in our columns, where he will find the best varieties of those sorts enumerated and classified according to colour and early or late blooming qualities. Crocks broken small must be placed over the hole at the bottom of the pot to secure drainage, and a

suitable soil is turfy loam; in the absence of this, good friable garden soil, to which must be added a quarter of a peck of leaf soil and the same of well-rotted manure, with a liberal sprinkling of silver or clean gritty river sand to each peck of soil. If loam is used these latter materials must be added. The depth to plant the bulbs in the pots may be indicated generally by saying that the crown of the bulb should be about half an inch above the surface of the soil. Very large bulbs, such as Narcissus, may be more. As soon as the bulbs are potted the pots should be placed out of doors, the ground on which they stand having been previously covered with a layer of ashes 1 inch deep. When all are placed on this ground they should be completely covered over with sifted ashes to the depth of 5 inches, and remain in this position for the matter of about six weeks. At the end of this time they will have filled their pots with roots, and may be taken into the greenhouse, keeping them rather dark for a week or ten days by covering them with paper in order to gradually inure them to the light. The later varieties should be potted three weeks later than the early ones in order to secure a succession of bloom. Hyacinths: The earliest to bloom are the Early Roman, French, and Italian, to be followed by the larger Dutch varieties, which may be had in choice varieties in many colours. Tulips: These may be had in sections of early, mid-season, and late varieties. By consulting a catalogue our correspondent will be able to select those varieties and colours which may appeal to him most strongly. Narcissus: Of these there are now very many charming and beautiful varieties, many of which bloom early with the help of a little artificial heat, such as a cool greenhouse would give. These are also arranged in sections of early, mid-season, and late, and the shades of colour and names given. The following bulbs will also be found both serviceable and beautiful: Chionodoxa (the Glory of the Snow), Scilla sibirica, the Dog's-tooth Violet, Freesia refracta, Winter Aconite and the Snowdrop, Ixias, Sparaxis, Jonquils, so valued for their sweetness. The hooped petticoat variety should be included. Anemones, and especially the Irish variety St. Brigid, now so deservedly popular, the Easter Lily (Lilium Harrisii), and the Lily of the Valley (retarded roots). Some of the earlier varieties of the Iris should be included, not forgetting the



PEAR CHARLES ERNEST. (Reduced.)

Spanish. There are many plants suitable for gentle forcing in a cool greenhouse, which, if obtained now, would give splendid results in flower during the winter and spring. Amongst them are the following: The Christmas Rose, Ghent and Mollis Azaleas, *Choisya ternata*, *Deutzia gracilis*, *Genista andreaana*, *Guelder Rose*, *Hydrangea*, *Dielytra spectabilis*, Lilacs in variety, *Prunus sinensis*, *P. triloba*, *Spiraea prunifolia*, *Staphylea colchica*, and *Viburnum plicatum*. It is now too late to sow seeds to bloom with any satisfaction this winter. To afford a useful and bright display in the herbaceous border next spring and summer the following, if sown outside without delay on a warm border, would give good results: Sweet Alyssum, *Arabis alpina*, *Antirrhinums*, *Aquilegias*, *Candytuft*, *Carnations* and *Picotees*, *Canterbury Bells*, *Clarkia*, *Collinsia bicolor*, *Coreopsis*, *Cornflowers*, *Daisies*, *Pansies* and *Violas*, *Forget-me-not*, *Delphiniums*, *Foxglove*, *Eschscholtzia*, *Gaillardia*, *Godetias*, *Hollyhocks*, *Lupins*, *Iberis*, *Linums*, *Mimulus*, *Pentstemons*, *Iceland* and *Welsh Poppies* and others, *Sweet Williams*, *Silene*, and *Salpiglossis*. There are many half-hardy annuals which could be raised from seeds in your greenhouse in spring, and which you would find most useful and attractive for the hardy border during the summer, as there are also many beautiful annuals which succeed well when sown out of doors in spring. If you will remind us at that season we shall be happy to help you.

IMPATIENS HOLSTII.

This handsome new greenhouse plant is a native of East Africa. It is very similar to the well-known *Impatiens Sultani*, but is distinguished from it by its larger and more brightly-coloured flowers, darker green leaves, and more vigorous growth. It is therefore probable that it will be more largely grown than *I. Sultani*, and when better known will to a large extent supplant it. *Impatiens Holstii* makes a bushy and symmetrical plant. The dark green leaves are strongly veined. The flowers are bright vermilion. The calyx consists of two very small sepals and one large one, which is boat-shaped, and has a long, thin spur. The flat corolla is made up of five obovate petals. Its home is German East Africa. It was introduced into the Berlin Botanic Gardens two years ago by Professor Dr. Engler, who brought back the seed with him when returning from his travels in Africa. From this seed several varieties appeared. One, of almost non-branched habit and with purplish red, almost circular, flowers, was considered by Professor Gilg to be the typical form. Another was much branched and had bright purple-red ovate flowers. A third form of similar habit of growth but with brilliant red flowers is the *Impatiens Holstii* now cultivated.

Between *I. Holstii* and *I. Sultani* a hybrid has already been raised by Messrs. Haage and Schmidt, Erfurt. This, more especially with regard to the foliage, is intermediate in character between the parents. The flowers, however, are very similar in size and form to those of *Impatiens Holstii*. If it were as free flowering as *I. Sultani* it would be of greater value for massing in beds. *Impatiens Holstii* may be propagated either by seeds or by cuttings. The former method is preferable, for seedlings send out shoots from the base, thus making bushy and well-furnished plants, while those raised from cuttings do this in a far less degree. If the seeds are sown in March in a warm house or frame, the young plants may be planted out by the end of May. They will begin to flower in June, and remain in bloom until the frost comes. On account of its more vigorous growth and better constitution than *I. Sultani*, *I. Holstii* is more suitable for pot culture.

Together with *I. Holstii*, Messrs. Haage and Schmidt received from the Berlin Botanical Gardens another *Impatiens*, which has been named *I. Holstii* var. *petersiana* (after Herr

Peters, curator of the Berlin Botanic Gardens) by Professor Gilg. This is quite distinct from *I. Holstii* and *I. Sultani*. *I. petersiana* is distinguished from both the above by its prominent veins, red leaf-stems, and the darker colouring of the leaves. It is similar in growth to *I. Holstii* and *I. Sultani*. The ovate or ovate-lanceolate leaves have serrate edges, and the veins on the under surface, especially when the leaves are young, are covered with hairs. The rosy carmine flowers, with darker centres, are produced in clusters of two or three blooms; the obovate petals are smaller than those of *I. Holstii*, and have smooth edges. The chief difference between *I. petersiana* and *I. Holstii* from a gardening point of view is in the bright carmine flowers, the dark green leaves, their attractiveness enhanced by the red petioles. This *Impatiens* will probably be sent out next year by Messrs. Haage and Schmidt, Erfurt.—*Möller's Deutsche Gärtner-Zeitung*.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, W.C. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

Legal Points.—We are prepared to answer questions of law which have anything to do with the subject of gardening and forestry. The questions should be as clear and explicit as possible, so that there can be no doubt as to the point of the question. Answers will be found in a separate column headed "Legal Points."

PLUM SUCKERS (R. B.).—The ground growths, as you term them, or "suckers" as they are usually called, spring from the stock upon which the Plum tree is grafted. The Gage Plums are usually grafted upon the Mussell stock, and it is doubtless the suckers from this that you are troubled with. They should be pulled up; they simply rob the tree of nourishment. The Plum is a surface-rooting tree, so we do not think the fact of the roots being fairly near the surface would prevent their fruiting. You might give a mulch of manure in early summer to prevent the ground becoming dry. Some Plum trees, and especially young ones, make such gross shoots that it is necessary to root-prune them in order to make them bear freely. Whether your trees need this or not you will be able to judge. If the shoots are thick and strong, and there is an absence of twiggy growth on the tree, then the roots ought to be pruned. All grafted fruit trees are liable to produce suckers from the stock upon which they are grafted.

BEGONIAS DISEASED (Ireland).—Your Begonias are attacked by a disease which has given a great deal of trouble within the last few years, and the cause of which cannot be definitely decided upon. Plants that have been very highly fed are more liable to it than any others, and in a damp situation it sometimes runs riot. A deeply-worked yet well-drained bed, with mulching if necessary in hot weather, seems the best means of warding off this trouble. Its progress is extremely erratic, and sometimes after a bad season the following year will be absolutely free. *Begonia* President Carnot and *B. coccinea* are tall-growing kinds. President Carnot will flower when smaller than *B. coccinea*, but still this needs to attain a height of 5 feet to 6 feet. It is the tall, Bamboo-like

stems referred to which flower the best, but they may, if you wish, be cut back in order to induce a bushy habit of growth, after which the plant must be allowed to develop at will, otherwise flowers will be few.

VARIOUS (Miss V. P.).—That fruit trees bloom freely very often and then fail to carry fruit is common, and particularly so this year, although the absence of fruit after a fine bloom is generally credited to the cold winds and frosts of May last. Your trees may be in an exposed position, hence would suffer from sharp late frosts. Possibly you may have better fortune next year. If the April-sown Snowball Turnips kept sound all the winter they would no doubt throw up excellent sprouts next spring. We should have expected to hear that they had bolted off to flower before this. We fear you will find them decay if the winter be severe. Manuring now might make them even more tender. The quantity of vegetables required by seven people all the year round depends on the supply demanded and the use made of it. Certainly half an acre should go a long way, but if Potatoes were needed also then an acre would be none too much. The soil sent indicates a fair sample of loam for garden purposes, rather light or sandy in texture, and apparently needing good dressings of manure to supply fibre.

PEARS DEFORMED (Willicot).—The cause of the deformity in your Pears was the severe frost at the end of May last, when Pears and other fruit throughout the country were much damaged, making this year one of the worst fruit years on record. Could you not thin out, if not altogether remove, some of the large trees which shade them? This would, no doubt, improve the quality of the Pears very much. Another thing which would help them considerably would be to give each a top-dressing 2 inches or 3 inches thick, and so far as the roots extend, of rich and well-decayed manure. The winter rains would wash the ammonia out of this manure to the roots of the trees and help them to develop better fruit another year.

ALTERING GARDEN (Eclipse).—So far as we can tell from the rough sketch of the garden, we think it would be the best thing to grass down the two square plots devoted to vegetables, and to make a few Rose-beds in each square; in fact, make two Rose gardens with broad grass paths in between. You need not have many beds, say four fairly large ones on each square, leaving an open space of grass in the middle. There you could place a sundial, or garden seat, or arbour of Roses. As there are no Rose-beds marked on the plan, we conclude you have no Rose garden. Or you might get a pretty effect by placing some tree roots and stumps there and planting rambling Roses against them, turfing down in between. Good herbaceous perennial plants for the purpose you name are German Irises (there are now many good sorts), *Pyrthrums*, *Chrysanthemum maximum*, *Aquilegia*, *Rocket*, *Doronicum*, *Crown Imperial*, bulbs of various sorts, especially *Daffodils* and *Tulips*, *Lupins*, *Delphiniums*, *Spanish Irises*, *English Irises*, *Galega*, *Geums*, *Monarda didyma*, *Lychnis chalcedonica*, *Lilium umbellatum*, *L. croceum*, *Phloxes*, *Japanese Anemone*, *Gladiolus*, *Scarlet Lobelia cardinalis* (store the roots in winter), *Hyacinthus candicans*, *Liatris pycnostachya*, *Dwarf Sunflower*, *Coreopsis grandiflora*, *Helenium*, *Rudbeckia*, *Golden Rod*, *Gaillardia grandiflora*, *Michaelmas Daisies*, early-flowering *Chrysanthemums*, *Lilium tigrinum*, *L. speciosum*, and *Pentstemons*. You might also use such easily grown annuals as *Sweet Peas*, *Rose Mallow*, *Linum*, annual *Chrysanthemums*, *Mignonette*, *Candytuft*, *Nasturtiums*, &c. (all to be sown where they flower). For an edging you should plant *Pinkies*, *Thrift (Armeria)*, *Violas*, and *London Pride (Saxifrage)*.

GOOSEBERRIES (A. B. C.).—The question: "Kindly give the best way to grow Gooseberries in a small garden, whether as bushes or espaliers."

The answer is that they succeed equally well in either position. When it is desired to preserve the Gooseberry on the tree as long as possible, the espalier system, we think, is preferable, as there is freer ventilation amongst the fruit and branches in this way, so that the sun does not strike so hot on them as it does on bushes. Moreover, they are more effectively protected from birds by netting in this way. The cost is more, of course. The espalier trellis should be 5 feet 6 inches high, 4 feet apart, and run from north to south. The trees for the espaliers should be single or double cordons, the latter to be preferred; the former to be planted 1 foot apart, and the latter 2 feet. If bushes are planted, a cool position in the garden should be selected, and the trees planted $4\frac{1}{2}$ feet apart. When buying bush trees, see that they have clear stems without branches of 9 inches to 1 foot, so that the soil will not splash on the fruit in rainy weather.

CHRYSANTHEMUMS (*Miss Darbyshire*).—The early-flowering Chrysanthemums are perfectly hardy, and may be left out of doors all the winter without any covering at all. The best way is to treat the plants so as to get good cuttings early for next year. Cuttings may be inserted any time between January and the end of March. The earlier the cuttings are rooted the finer plants will be obtained. They will, of course, flower the same year. The cuttings strike root easily. Insert half-a-dozen cuttings around the side of a pot 3 inches in diameter, or more in proportion in a larger pot. Fill the pots with a light sifted sandy soil, and insert the cuttings firmly. You may use boxes about 2 inches deep instead of pots; they are more convenient for large numbers. The cuttings would root quickly in your greenhouse. The cuttings must be taken from the base of the plants, and not from the stem. A large number of cuttings may be obtained by taking up and repotting the old plants, or putting them in boxes, well covering them with soil, and placing them in the greenhouse. Pot on into larger pots and gradually harden off for planting out in May. You may insert the cuttings now if you can get them.

APPLE TREES (*J. S. C. D.*).—The best early dessert Apples are Mr. Gladstone and Devonshire Quarrenden (August), Lady Sudeley, James Grieve (September), Margil (October), Cox's Orange Pippin, King of the Pippins (October-December). Dessert Apples for storing are Allington Pippin (December-January), Cockle's Pippin (Christmas), Claygate Pearmain (January), Lord Burghley (February), and Sturmer Pippin (March-April). Of cooking Apples select Pott's Seedling (August-September), Ecklinville Seedling and Stirling Castle (October), Warner's King (November), Bismarck (November-December), Lane's Prince Albert, Wellington (January), Newtown Wonder (February), and Northern Greening (March). You do not say how many varieties you wish to plant. If you want only a few varieties plant Mr. Gladstone, Lady Sudeley, Cox's Orange Pippin, Cockle's Pippin, Pott's Seedling, Stirling Castle, Bismarck, and Lane's Prince Albert. Profitable dessert Apples for market are, in order of ripening, Beauty of Bath, Worcester Pearmain, King of Pippins, Cox's Orange Pippin, Allington Pippin, Christmas Pearmain, and Beaumann's Red Reinette. The best cooking Apples for market are Lord Suffield, Ecklinville Seedling, Stirling Castle, Warner's King, Bismarck, and Lane's Prince Albert. These are either highly coloured or large, two important points in market Apples.

VIOLET LEAVES DISEASED (*A. W. B.*).—The leaves are suffering from a severe attack of red spider, and in a less degree from the Violet fungus. The unusually hot weather of the early summer has been most inimical to the healthy growth of the Violet. As is well known, this plant enjoys a cool and partly shaded position to grow in during the summer. We can only come to the conclusion that the attack of red spider on the foliage had been going on for a longer time

unobserved than our correspondent suspects. With regard to suggesting remedies, it is too late in the season for the plants to recoup themselves with a crop of new leaves, and the best thing to do will be to make the best of such foliage as you have left by trying to rid it of those terrible little suckers of the plant's vitality. The first thing to do should be to remove the few healthy plants there are and plant them in a frame or some sheltered position in the garden, well isolated from the diseased plants. In the second place, the leaves affected with the Violet fungus should all be picked off and at once burnt. These are easily distinguished by the scaly brown spots on the leaf. There is no cure for this, as it exercises its baneful influence between the upper and lower layer of the leaf, and therefore out of reach. A simple and efficacious remedy we have found in ridding these pests is the following—it will kill most of them, and what it will not kill it will frighten away, for they do not like the taste of the mixture: A quart of quicklime, the same of soot and flowers of sulphur, and loz. of tobacco powder. Mix well together, and dust the leaves both over and under, having first syringed the plants to make the stuff stick. The dressing should remain on the plants for a week and then be syringed off.

PHLOX FAILING (*D. W., Surrey*).—Although we could not find the wireworm, we think from the appearance of your plants there is no doubt that they have been attacked by this pest, which soon plays great havoc. The details you give of first one of the plants dying off and then another tends to confirm our opinion. It is a pity you did not send us the small worm you found, for probably it was a wireworm. This is about half an inch long, yellow in colour, and with a tough skin. The best thing to do to rid your soil of them is to dig it well and plant nothing in it until the spring. Continually stirring the soil disturbs them; by turning it over they are often brought to light, and then should, of course, be killed. Wireworms flourish in undisturbed soil. Lime and soot are cheap and very good ingredients to mix with the soil, and they drive away the wireworms. If you apply one or both of these to your soil, and by frequent diggings and searchings for the wireworms, we think that next year they will trouble you very little. You might now catch some of them by inserting Potatoes, sliced in half, in the ground, for the wireworms are fond of them. Attach each slice of Potato to a short stick, so that they may easily be pulled out of the soil. Examine them every day and you will very likely find wireworms boring into them.

MOVING ROSES (*E. A. C. C.*).—We should prefer to transplant in March, since in any case you cannot place them in their permanent positions before then. If you could permanently plant them now, then, of course, it would be preferable. Either of the alternatives you mention is practicable, but if nothing is to be gained by moving them now, do not disturb them until March. We are afraid that a good deal of the old growth of the rambling and climbing Roses will have to be sacrificed. The best thing to do will be to cut right out when you transplant a number of the older growths, leaving all the younger ones. By doing this you will give the latter a better chance of breaking into strong growth. Leave the younger shoots for a time in order to see how they start into growth, then cut them down accordingly. By adopting this method you will not sacrifice the flowers next year altogether. The old growths of strong-growing climbers should always be kept well thinned out, for it is on the younger shoots that most flowers are produced. When you transplant lift very carefully so as not to damage the roots more than is unavoidable, and plant in good soil. Shorten to about two-thirds of their length the long shoots of the Hybrid Perpetuals, finally pruning them in March. You might leave some of the best their full length, and in

March, instead of pruning them hard back, peg them down, and they will produce blossom their full length.

GRAPES (*C. W. E.*).—Yes, Black Hamburgh is certainly an easier Grape to grow than Gros Colmar, and it would, perhaps, be as well if you grew it instead of the latter, which needs more heat than Black Hamburgh. The probable cause of the berries splitting is a too low temperature and too much moisture. Gros Colmar requires a long season and a good deal of artificial heat to bring it to perfection, so far as flavour and colour are concerned. There may be something wrong with the border. If the roots have gone into a bad subsoil, or the soil of the border is sour, something is almost certain to go wrong with the fruit. A well-drained border of sweet and suitable soil is an all-important factor in Grape culture, and unless this is assured the best results can never be obtained.

DART MOTH (*M. H. C.*).—The caterpillars you sent are the larvæ of the common dart moth (*Agrotis segetum*). As these insects generally live underground it is difficult to suggest any easy method of destroying them. Insecticides are of little or no use. As to Vaporite, I do not think that you would find it of much use. Mr. Strawson himself admits that "some weeks must elapse before a sufficient accumulation of gas is reached to destroy life." These caterpillars hide during the greater part of the day under stones, clods, rubbish, &c., and sometimes in cracks in the ground. A heavy watering with soapy water will bring them out of the latter, but the most certain way to destroy them is to turn them out of the soil with a spud. Laying pieces of board, bricks, tiles, or slates on the ground where you think the caterpillars are likely to be would probably prove useful as traps. They should be lifted every morning.—G. S. S.

MAGPIE MOTH (*A. Cunliffe*).—Your last consignment of insects reached me quite safely. They are all the caterpillars of the Gooseberry or magpie moth (*Abraxas grossulariata*); but they are all young specimens, some of them very young. They appear to be of a rather darker variety than usual. When full grown the caterpillars of this moth should be about $1\frac{1}{2}$ inches in length. The moth is a handsome insect, and measures nearly $1\frac{1}{2}$ inches across the wings when open. This species is very variable in the arrangement and size of the markings and spots. It is a very common insect; it does not fly well, but flutters about in a somewhat aimless manner, and may be easily caught in a butterfly net. The caterpillars may be destroyed when feeding on the leaves by spraying them with a solution of paraffin emulsion, or by spraying with Paris green, which poisons the leaves on which they are. The young caterpillars pass the winter between leaves which they spin together, or among the dead leaves which lie under the bushes, or in the forks between two branches, or under any similar kind of shelter that they can find. When they have attacked plants trained against a wall or paling any cracks or crevices that there may be in them are very favourite winter quarters. All rubbish and dead leaves should be removed (and burnt) from under plants which have been attacked, particularly any leaves which do not fall with the others.—G. S. S.

PINE SAW-FLY (*Mac*).—Your Scotch Firs are infested by the grubs of the Pine saw-fly (*Lophyrus pini*), which is, unfortunately, by no means an uncommon pest on Fir trees. You do not say whether your trees are large ones or not, but if they are of a size which you can spray, you should do so with a solution of paraffin emulsion or with Paris green. The grubs either become chrysalides among the leaves, on the stems, or among moss, &c., on the ground. They first spin a cocoon round themselves, within which they undergo their transformations. If you find that many of the grubs fall to the ground, I should rake up all the fallen needles

and any rubbish or moss that there may be under the trees and burn them. If the trees are small enough many of the saw-flies might be caught in the spring in a butterfly net when they are flying about the trees.—G. S. S.

BISHOP'S WEED (Mrs. Smith).—This is one of the most difficult weeds to eradicate, unless you can make a clearance and fork it out. Not only does it travel by means of underground shoots, which spring up here and there in all directions, but the smallest bits of root are capable of making a new plant. The roots, moreover, are so brittle that it is difficult to effect a clearance. If, however, it is possible, you may much reduce the plant by applying, with a pointed stick, a drop or two of carbolic acid, dropping the acid into the heart growth. In time, however, other growths will appear, when you should at once repeat the operation. If not too tedious a task for you, the cutting off of every vestige of leaf-growth as soon as it appears has been known to kill some of the most troublesome of weed pests; indeed, no plant can long stand against such a course of treatment.

HERBACEOUS ANEMONES (H. M. P.).—By the above we presume you refer to the Japanese Anemones (*A. japonica*), of which the white form is one of the finest of autumn-flowering plants. The group generally prefers a very deep soil, not too light, and not the other extreme, a heavy or tenacious soil. In a deep loamy clay that is also sandy, the plant may be made quite a feature, and we should advise you to prepare the soil as deeply as possible, working in old manure at varying depths of 1 foot to 2 feet. If you can trench the soil to 3 feet deep so much the better. In the event of heavy soil, road grit, or any sandy material, or old mortar, could be added freely. This Anemone is most impatient of disturbance, hence the greater reason for planting it thoroughly well. If you plant now keep the crowns well below the soil, and we would advise the planting of a dozen or two of the strongest plants obtainable. The plant is somewhat slow in growth the first year or two, but after this it makes up for lost time.

PLANTS FOR CLAY SOIL (S. E. C. W.).—Very few plants will succeed under the conditions named, the most likely to suit your purpose being *Crambe cordifolia*, with large heart-shaped leaves; and *Heracleum giganteum*, a tall bold member of the Cow Parsnip family, but both of these need as open a spot as possible. By working a little lighter material with the clay you might establish the Male Fern (*Lastrea Filix-mas*), one of the boldest growing and most accommodating of our hardy Ferns. This will do well even under the trees, and so will the Ivy in its numerous forms, the larger Periwinkle (*Vinca major*), the Japanese *Euonymus radicans* and its variegated variety, as well as the Butcher's Broom (*Ruscus aculeatus*). In open glades that huge member of the Knotweed family (*Polygonum sachalinense*) would be likely to hold its own, while even in clayey soil, if well exposed to the sun, the double-flowered Furze is very beautiful.

LOGANBERRY (H. M. P.).—The Loganberry may be treated similar to the Raspberry, allowing for its more vigorous growth, but the better way is to train it to a fence, wall, or similar position. It may be trained to a fence, where it will make growths of 10 feet to 12 feet in length. As the fruits are borne on the new wood all the old growths should be cut out as soon as the crop is gathered. Whether on a fence or wall they should be planted 8 feet or 9 feet apart. If the plants are small they may be planted 4 feet apart, taking out each alternate one as they get crowded. The Loganberry is a liberal feeder. If it is intended to plant and treat them as bushes, the ground should be well trenched for their reception, and a liberal amount of manure dug in. The plants, which can be readily obtained from a nursery during the late autumn

and winter months, should be set out about 5 feet apart and treated like Raspberries, that is, cut out the old wood after the fruit is gathered, but shorten back the canes to a height of about 6 feet. The Loganberry can be increased by means of rooted suckers, while the tips of the growing shoots root readily if layered after the manner of the Bramble.

VARIOUS QUESTIONS (C. C. Weymss).—In addition to the suitable plants you already have, you might plant Japanese Irises, German (Flag) Irises, *Iris sibirica*, *Lobelia cardinalis*, Willow Herb (*Epilobium*), *Primula japonica*, *Carex pendula*, *Ranunculus Lingua*, Wood Lily (*Trillium grandiflorum*), *Lilium superbum*, and *L. canadense* (in peaty soil), *Spiraea Aruncus*, *Bocconia cordata*, *Eulalia*, *Dielytra spectabilis*, *Senecio pulcher*, and *Saxifraga peltata*. Yes, the Pear will grow under glass providing you keep it perfectly cool. The Pear cannot be forced like the Peach. The glass covering would be useful for protecting the blossoms until the embryo fruits have formed, but during summer they must be grown cool. Suitable climbers would be *Roses* *Maréchal Niel*, *Niphetos*, *Abutilon*, *Fuchsia*, *Solanum jasminoides*, *Plumbago capensis*, *Lonicera semperflorens minor*, *Ipomœa rubro-cerulea*, and *Camellia*. The latter can easily be trained against a wall.

WIREWORMS ON LAND (H. French).—We presume you have destroyed a great many of the grubs, since you would be sure to find a quantity in the Potato tubers. Continually digging and stirring the soil, and catching as many as you can whenever they are seen, will get rid of a great many of them. If you apply gas-lime to the land at the rate of $\frac{1}{2}$ lb. to 1 lb. per square yard it will kill wireworms and other insects, but you must not grow a crop on the ground, some growers say for nine months afterwards, though some say less. You might trap a quantity by inserting sliced Potatoes (attached to a short stick, so that they can be examined easily) at frequent intervals throughout the land. Examine these every two days or so, and destroy all wireworms eating into them. By doing this, and applying lime (not gas-lime) and soot freely you will get rid of them in time. If you can afford to let the ground be idle for some months use gas-lime as advised.

BERRIED SHRUBS (Bechill Enquirer).—The following list of shrubs bearing ornamental berries would suit your purpose: *Aucuba japonica*, a valuable evergreen at all seasons, which is, of course, additionally attractive when laden with its oblong-shaped scarlet berries. In the case of the *Aucuba*, the male and female flowers are borne on separate plants, so that artificial fertilisation is necessary. Nearly all those commonly met with in gardens are female plants. If a male plant is in proximity to, say, half-a-dozen females, these latter will berry without any artificial aid. *Cotoneaster horizontalis* forms a sturdy bush, whose branches grow in an almost horizontal manner. The berries are scarlet in colour, and the leaves die off brightly tinted. Though when growing in a horizontal manner it only reaches a height of 2 feet to 3 feet, yet secured to a wall it will mount up to at least 10 feet, and is in this way very distinct. *Cotoneaster microphylla* is a somewhat creeping shrub, clothed with small evergreen leaves, and in winter is thickly studded with bright crimson berries, which remain on for some time. *Cotoneaster rotundifolia* is a freely branched open-growing shrub, clothed with small dark green roundish leaves, most of which are usually retained throughout the winter. The berries, about the size of large Peas, are freely borne, and of a bright scarlet colour. *Cotoneaster Simonsii* is a shrub 6 feet to 8 feet high, with a profusion of orange-scarlet berries. This *Cotoneaster* is deciduous, or nearly so. *Crataegus Pyracantha* (Fire Thorn) is a universal favourite for clothing the walls of dwelling-houses. The different Hollies are well known as beautiful berried

evergreens. *Skimmia Fortunei*, which used to be known as *Skimmia japonica*, is a pretty little evergreen shrub 15 inches to 18 inches high, that bears a profusion of crimson berries. *Skimmia Foremanni* is a bush 3 feet high, with shining evergreen leaves, and sealing-wax-like berries. *Rosa rugosa* is remarkable for its large brightly coloured fruits, which are retained after the leaves drop. If the soil is free from lime, that is, if *Rhododendrons* thrive with you, *Pernettya mucronata* is a valuable berried shrub. It is a neat evergreen, 2 feet to 4 feet high, and in the different varieties the berries range in colour from white to blackish purple. Some of the pink and red shades are very pretty.

MEALY BUG IN GREENHOUSE (S. C. S.).—It would be of no use at all to fumigate with ordinary Tobacco paper. The fumes of this will kill green fly, but have little or no effect upon mealy bug. The best thing you can do is to use XL All Insecticide. This is vapourised by burning in a small vessel placed over a spirit lamp. Full directions are given with the preparation, which, together with the necessary apparatus, may be purchased from any nurseryman or horticultural sundriesman. After you have fumigated it is a good plan to look over the plants, and if any mealy bug is still to be found on them touch them with a small brush dipped in methylated spirit; this will kill them instantly. Fumigate two evenings in succession, so as not to give any of the insects a chance of reviving. Syringing the plants with soft-soapy water with which paraffin has been mixed, at the rate of a wine-glassful to two gallons of water, also helps considerably to keep the plants clean.

PRUNING PLUM TREES (W. M.).—It is advisable to lift and root-prune bush Plum trees every two or three years at least, otherwise they often make gross unfruitful growth, and bear little or no fruits. If your bush tree has done this lift and cut back the thick strong roots at the end of October, just before the leaves fall. Plums do not need much top-pruning if the roots are properly seen to and periodically pruned so as to encourage the growth of moderately strong shoots. You must cut out those shoots which cross each other and which tend to block up the centre of the tree. Cut them right out and do not cut them back. Cutting back strong shoots only results in more shoots being formed. The pruning should consist of removing rather than cutting back. You might shorten the leading shoots several inches if they are thin and weak at the ends. You ought to have pinched back the lateral growths in summer (summer pruning) so as to encourage the formation of fruit buds; these shortened shoots may in winter be cut back still further to within about four buds of the base. It is only to the lateral or side shoots that this applies. The fruit is borne on spurs, short stubby growths bearing fruit buds, and summer pruning encourages these, and also on young shoots. Thin out the main shoots to say 18 inches apart, and treat the lateral shoots as advised. This pruning should be carried out in February.

MILDEW ON CHRYSANTHEMUMS (R. B. S.).—If the fungus which has attacked your plants is mildew (easily distinguishable from the whitish, powdery appearance of the leaves), it may be checked by dusting the leaves with flowers of sulphur or syringing with Bordeaux mixture, which is made by dissolving 10oz. of sulphate of copper in a little boiling water, and add five gallons of water; slake 6oz. of lime in some water, when it is cool pour it into the solution of copper, and stir all well together. To test the mixture, so as to be quite sure it will not injure the foliage, hold the blade of a bright knife in it for a minute; if the blade is unchanged it is all right, but if the steel shows signs of a deposit of copper more lime must be added. If the disease is the *Chrysanthemum* rust, which forms small dark brown masses of spores on the under sides of the leaves, the latter should be sprayed with a solution of sulphide of potassium every

ten or fourteen days until the disease disappears. It is well to isolate the plants that are attacked and pick off the leaves that are worst affected. Sulphide of potassium solution is made by dissolving 1 oz. of sulphide of potassium (liver of sulphur) in a quart of hot water, and diluting it with two and a-half gallons of water.

LAVENDER (North Country).—This fragrant and popular plant is quite hardy, and you need have no fear if young plants are secured and the planting done either in early autumn or in March or April next. If you could obtain year-old bushes these would, we think, be very suitable for planting. The plant succeeds well in almost all classes of light sandy loam, displays a strong liking for chalky soils, which by the way are not at all essential to success, and is most unhappy in the heavier classes of soils. Soils very rich in humus are not so suitable to the plant, therefore manures of a strong nitrogenous character should not be freely employed. Firm planting is very necessary. If your soil is light dig it deeply and work in a little well-decayed manure at 1 foot deep. If you are dealing with heavy soil your better plan, assuming you wish to plant a line or border of the plant, will be to take out a deep trench, well dig up the bottom soil, and add road grit or weathered sea sand freely with the staple soil. In such a mixture the plant should grow quite freely.

NAMES OF PLANTS.—*J. E. C.*—*Galeopsis versicolor* (G. Tetrabit var. speciosa).—*William Muller, Naples.*—*Calliandra Tweedii.*—*Miss Darbyshire.*—*Aster acris.*—*T. H. A. H.*—*Ambrosia artemisiifolia.*—*J. H. Philpotts.*—1, *Oxalis Bowiei*; 2, *Linaria Cymbalaria.*—*Metbourne.*—1, *Cymbidium giganteum*; 2, *Ocimum tigrinum* var. *unguiculatum*; 3, *Cyperorchis Mastersii* syn. *Cymbidium Mastersii*; 4, *Mina lobata.*—*E. T.*—Probably *Pyrus elegnifolia*, but cannot say without flowers. Please send when in bloom.—*David Howell.*—The name of the enclosed specimen is *Myrtus Luma*, formerly known as *Eugenia apiculata*. Such a specimen as yours—12 feet high and 3 feet through—must now, when laden with blossoms, be a charming sight, sufficient to make one long for your favoured Cornish climate.—*C. S. C.*—1, *Symphoricarpos racemosus*; 2, *Atriplex hortensis atrosanguinea*; 3, *Ruellia Portellae*.

NAMES OF FRUIT.—*Tipp.*—1, *Burré Diel*; 2, *Marie Louise d'Uccle*; 3, *Doyenné de Merode*; 4, *Marguerite Marillat*; 5, *Burré Hardy*; 6, *Oslin*; 7, *Lane's Prince Albert*; 8, *Queen Caroline*; 9, *Louise Bonne de Jersey*; 10, *Hoary Morning.*—*E. W. Blackburn.*—1, *Burré Rance*; 2, *Uvedale's St. Germain*; 3, *Aston Town*; 4, *Marie Louise d'Uccle*; 5, *Burré Clairgeau*; 6, *Crimson Queen.*—*A. D. Roe.*—1, *Adam's Pearmain*; 2, *Boston Russet*; 3, *Emperor Alexander*; 4, *Warner's King*; 5, *Dumelow's Seedling*; 6, *Cobham*; 7, *Strandingham*; 8, *Chatley's Kernel*; 9, *same as 8*; 10, *same as 8*. The other varieties had all the numbers rubbed off.—*E. Kearsney*—1, *Cox's Orange Pippin*; 2, *Tibbett's Pearmain*; 3, *Pear Doyenné du Comice.*—*A Constant Reader (G. H.)*—1, *Arrived smashed*; 2, *Burré Diel*; 3, *Bess Pool*; 4, *Cox's Orange Pippin*; 5, a local variety; 6, *Hambledon deux Ans.*—*Harperley.*—1, *Williams' Bon Chrétien*; 2, *Forelle*; 3, *Comte de Lamy*; 4, *Marchel de la Cour*; 5, *Burré Bachelier*; 6, *Tower of Glamis*; 7, *Withington Filbasket*; 8, *Hawthornden*; 9, *Lemon Pippin*; 10, *Northern Greening*; 11, *Dumelow's Seedling*; 12, *Mank's Codlin*.

SHORT REPLIES.—*C. L. V. Baker.*—Hardy perennials: *Crown Imperial*, *Doronicum plantagineum*, *Trollius*, *Aquilegia*, *Delphinium*, *Pyrethrum*, *Lupin*, *German Irises*, *Spanish Irises*, *English Irises*, *Lilium* in variety, e.g., *umbellatum*, *croceum*, *longiflorum*, *candidum*, *tigrinum*, *speciosum*, *auratum*, and others, *Gaillardia*, *Gladiolus*, *Ponies*, *Helenium*, *Carnations*, *Roses*, *Phloxes*, *Japanese Anemones*, *Michaelmas Daisies*, *Golden Rod*, *Helianthus* of sorts, *Rudbeckia*, *Pentstemon*, and *Chrysanthemums*. You will find all the above useful for cutting.—*Bennett Fitch.*—No, you must not leave the Bottle Brush tree out of doors during winter, for it is not hardy. Sow the seeds now in a greenhouse in a box in light, sandy, well-drained soil, giving very little water until the seeds germinate. The Green Gage Plum trees which bloom well but do not fruit may have the blossom damaged by frost in spring. You should protect them at night when in flower by placing some canvas over them. This is easily done by placing laths from the top of the tree to the ground and fastening the canvas on. A fertile cause of the flowers falling to "set," that is, to form fruits, especially with wall trees in small gardens, is dryness at the root. By the time the trees are in bloom the sun is gaining power and the house wall is warm. Naturally, the soil gets dry, and if not watered the roots suffer and the embryo fruits fall. Water well when the tree is in flower. We should think the same remark would explain the non-fruiting of the Cherry.—*A. G.*—The leaf set is that of *Francoa ramosa* (the Bridal Wreath), a beautiful greenhouse flowering plant, bearing long, slender spikes of white flowers. There is also one that bears pink flowers called *Francoa appendiculata*. It needs only greenhouse treatment, and may easily be raised from seed sown in spring or be propa-

gated by dividing the older plants.—*J. H.*—1, a *Dendrobium*; 2, probably a *Cirrhopetalum*; 3, most likely *Trichostema suavis*; 4, *Chlorophytum elatum variegatum*; 5, *Panicum variegatum*; 6, *Sedum Sieboldii*; 7, *Carex elegans variegata*. It is impossible to name *Orchids* definitely without flowers. The word *Cotoneaster* is pronounced as a word of five syllables, viz., *Cot-o-ne-as-ter*. We do not know of a cheap pronouncing dictionary of plant names, but there is an exhaustive list in the supplement to the "Dictionary of Gardening."—*Mrs. Clarke.*—Your Violet plants are suffering from a bad attack of the Violet fungus or rust (*Puccinia Violae*). There is no absolute cure for it, as it develops underneath the surface of the leaf, where no insecticide can reach it; but the mycelium, or spreading part of the disease, makes its escape by the brown spots, which appear on the surface of the leaf, and to kill this flowers of sulphur should be freely dredged under and over the leaf and allowed to remain on for three or four days, and then syringed off. This will check its spreading, and should be applied again if the disease shows any further signs of development. The worst of the leaves should be cut off and burnt.—*Baroness von Schröder.*—The term *Cypress* leaves the identity of the trees an open question, as it is applied to several members of the *Cupressus* family, and often to some of their immediate allies. Most of them will bear cutting well, but, of course, a very great deal depends upon the age of the tree, its vigour, and the extent to which the cutting is carried. Even the Yew referred to in your letter will receive a great check if when old it is cut back hard, whereas in a young state it is very amenable to this treatment, which may then be carried on for generations. The most generally planted of this class is *Lawson's Cypress* (*Cupressus lawsoniana*), and if your trees are of this species, and vigorous in health, you may cut them back in moderation with but little risk. Directly the harsh winds of March are past is a good time to cut back your trees.—*M. F. S.*—We should imagine that the swollen state of the shoot of your *Crimson Rambler* is caused by something hindering the growth. Sometimes a piece of string or wire remains on the shoot, and this in time eats into the bark. Look carefully to see if this can be the case; if not, do as you suggest and earth up the growth. The new roots will lay hold of the soil and probably put new life into the plant. If the roots are sound there should be new shoots spring up from the base next year, especially as this one growth is not apparently satisfactory. Fork up the soil round about the plant in order that rain, sun, and air may penetrate. Often these climbers fail owing to the want of moisture at the root, especially where planted by hard paths.—*J. N. P.*—Neither *Primroses* nor *Oxlips* can be forced, the only thing that can be done to accelerate their flowering being the protection of a cold frame, or when the buds are well up the plants may be taken into a light airy greenhouse where the temperature rarely exceeds 50°. Chinese *Primulas*, too, would be at once spoilt if forcing was attempted, but an early batch may be raised from seed sown in the first half of June, and these would naturally flower sooner than those sown later on.—*R. Fisher.*—In your neighbourhood *Lilium auratum*, *L. longiflorum*, and *L. speciosum* (lancifolium) that have flowered out of doors should be allowed to remain there throughout the winter, as nothing is gained by disturbing them. Those in pots should be repotted as soon as ever the stems die down, placing them afterwards in a cold frame. Throughout the winter they must be kept watered, but not to excess. By the spring the roots will have taken possession of the new soil, when as the stems develop more water will, of course, be required. *Hyacinth gigantea* is a pale pink flower, and it is in every way a very desirable variety.

SOCIETIES.

NATIONAL CHRYSANTHEMUM SOCIETY.

THERE was a splendid display of early-flowering Chrysanthemums at the first exhibition this year of the National Chrysanthemum Society at the Crystal Palace on the 4th and 5th inst. The classes for the early-flowering or "hardy" varieties brought keener competition than those devoted to the show blooms. The non-competitive exhibits added largely to the value of the show.

OPEN CLASSES.

For a group of Chrysanthemum and foliage plants Messrs. John Peed and Sons, West Norwood, won the first prize, Mr. R. Forster, Nunhead Cemetery, being second.

The first prize for twenty-four Japanese blooms was won by Mr. George Halsey, gardener to Mrs. Jeremiah Lyon, Riddings Court, Caterham Valley. Miss Elsie Fulton, Mrs. T. W. Pockett, Duchess of Sutherland, Gustave Henry, and others were excellent. Mr. J. Kirkwood, Grass Park House Gardens, Finchley, was second.

For twelve Japanese blooms, distinct, Mr. Halsey was again first with very good blooms; Mr. W. Hammond, gardener to Mrs. M. Lewis Hill, Woodside, Maidenhead, was second; and Mr. H. Farr, Trent Park Gardens, New Barnet, third.

For six Japanese blooms, distinct, Mr. Mark Rayment, gardener to W. Beech, Esq., North Ockenden, Romford, was first, Mr. F. Blackille, The Gardens, Parkside, Ravenscourt Park, being second.

Twelve bunches of early-flowering Pompons made a pretty display, and the first prize was won by Mr. D. B. Crane, Highgate, N., with a beautiful lot; Mr. E. F. Such, Maidenhead, was second.

In the class for twelve bunches of early-flowering varieties, distinct (prizes given by Mr. W. Sydenham, Tamworth), there was keen competition. The first prize

was won by Mr. John Smellie, Pansy Gardens, Busby, near Glasgow, with a beautiful lot of flowers. Among them was a splendid new sort called *Champs d'Or*, rich yellow. Second, Mr. D. B. Crane, Highgate, who also showed well; third, Mr. J. Emberson, Grove Road Nursery, Walthamstow.

The first prize for two vases of twelve blooms of large-flowering sorts was won by Mr. J. Kirkwood, Grass Park House Gardens, Finchley, with handsome blooms; second, Mr. F. Blackille, Ravenscourt Park.

For six bunches of early-flowering varieties, distinct, Mr. John Smellie was again first with a good display; second, Miss C. B. Cole, The Vineyard, Feltham; third, Mr. Frank Brazier, Nineham's Nursery, Caterham.

The first prize for a table decoration with Chrysanthemums (prizes given by Mr. J. Williams) was won by Mr. D. B. Crane, Highgate, who used a yellow Pompon variety very attractively; second, Miss Cole, Feltham, who also used a yellow variety; third, Miss J. Fairweather, Bifrons, Canterbury.

Miss Cole showed the best three epergnes of Chrysanthemums, Mr. D. B. Crane being second, and Mrs. Brewster, Canterbury, third.

Twelve bunches of early-flowering Pompons made a poor display, Mr. D. B. Crane winning first prize. Mr. Crane also was first for six bunches of early-flowering Pompons; second, Mr. E. F. Such, Maidenhead; third, Mrs. F. Brewster, Canterbury.

Mr. John Smellie, Busby, N.B., won the first prize for six bunches of early-flowering varieties, distinct, *Roi des Blancs* being especially fine; second, Mr. Frank Brazier, Caterham; third, Mr. Such, Maidenhead.

Mr. George Halsey, Riddings Court Gardens, won the first prize for a vase of five yellow Japanese blooms, one variety only, with fine flowers of Bessie Godfrey; second, Mr. H. Farr, Trent Park Gardens, with *Merstham Yellow*.

Vase of five Japanese blooms, one variety, white: First, Mr. George Halsey, with Miss Elsie Fulton; second, Mr. Mark Rayment, gardener to W. Beech, Esq., North Ockenden, Romford; third, Mr. J. Kirkwood.

For a similar vase, any variety not white or yellow, Mr. George Halsey was first with fine blooms of the variety *Mrs. George Mileham*; second, Mr. J. Kirkwood; third, Mr. H. Farr.

AMATEUR CLASSES.

For twelve Japanese blooms, distinct, Mr. C. Haselgrove, gardener to W. Brander, Esq., Sydenham Hill, was first, Alice Byron being a fine flower. There were no more entries.

For twelve bunches of early-flowering Japanese, Mr. Andrew Hoggan, Strathely, Busby, N.B., was a good first; second, Mr. D. B. Crane; third, Mr. A. Taylor, East Finchley.

The first prize for a vase of early-flowering Pompons was won by Mr. Crane with a very pretty display. Miss Cole, Feltham, showed the best hand-basket of Chrysanthemums. The exhibits in the class for a hand-basket of garden flowers made a pretty display, Miss Cole again winning first prize; second, Mr. A. Taylor, East Finchley; third, Miss Fairweather, Bifrons, Canterbury. Dahlias were chiefly used in all these arrangements.

Miss J. Fairweather, Bifrons, Canterbury, won first prize for a hand-basket of Roses. There were some pretty exhibits in the class for a basket of autumn foliage and berries, Miss Cole winning the first prize with a charming exhibit. Miss Oliver, 97, Tollington Park, N., won the first prize for a vase of Chrysanthemums for dinner table decoration, and Miss Jessie Martin, South Norwood, had the best epergne of Chrysanthemums. Mr. W. H. Chalk, Slough, was first for six Japanese blooms, distinct.

NON-COMPETITIVE EXHIBITS.

Messrs. T. S. Ware, Limited, made a large display with Dahlias, Begonias, and Chrysanthemums (gold medal). A gold medal was given to Mr. Norman Davis, Framfield, for a very fine group of Chrysanthemums and Asters. Shrubs in variety from Mr. David Russell comprised conifers, Hollies, Clematis, &c. (silver medal). Mr. H. J. Jones, Lewisham, had an excellent exhibit of Asters and Chrysanthemums in great variety (silver-gilt medal). Messrs. H. Cannell and Sons, Swanley, showed early-flowering Chrysanthemums and a brilliant group of *Cannas* (large silver medal). Mr. Frank Brazier, Addison Road, Caterham, was awarded a large silver medal for a group of early-flowering Chrysanthemums.

Hobbies, Limited, Dereham, were awarded a gold medal for a very fine display of Dahlias in great variety, early-flowering Chrysanthemums, and *Roses*. A silver-gilt medal was awarded to Mr. W. Sydenham, Tamworth, for a splendid group of early-flowering Chrysanthemums in many good sorts. Messrs. J. Peed and Son, West Norwood, showed a group of Begonias Mrs. Leopold de Rothschild, Turnford Hall, and tuberous varieties (small silver medal). Messrs. J. Cheal and Sons, Crawley, were awarded a silver-gilt medal for a beautiful collection of Dahlias. Mr. A. Baile, Woburn Park Gardens, Weybridge, showed 150 very good Onions (large silver medal). Messrs. R. H. Bath, Limited, Wisbech, showed a group of early-flowering Chrysanthemums in pots (large silver medal). Messrs. G. and G. T. Adams, Grosvenor Road, Tunbridge Wells, showed these together with Asters (small silver medal). A large silver medal was awarded to Messrs. W. Wells and Co., Merstham, for a group of early-flowering Chrysanthemums in many good sorts. Messrs. Cragg, Harrison, and Cragg, Heston, showed Chrysanthemums in pots. A silver-gilt medal was awarded to Mr. E. F. Such, Maidenhead, for a large group of early-flowering sorts. M. Auguste Nonin, Chatillon-sous-Bagneux, showed several new seedling early-flowering Chrysanthemums.

New varieties which gained certificates were *Perle Chatillonnaise*, salmon buff (Bath); *Maxim*, crimson-red (H. J. Jones); *Money-maker*, white (H. J. Jones); *Goacher's Pink* (Wells); and *Harry*, orange-red (Wells).

ROYAL HORTICULTURAL SOCIETY. EXHIBITION OF BRITISH-GROWN FRUIT.

A GREAT show of British-grown fruit was held at the hall of the Royal Horticultural Society on Tuesday, Wednesday, and Thursday last, the 10th, 11th, and 12th inst. The hall was not so well filled as at last year's show, but the hardy fruit was generally excellent. On the whole, Pears were better than Apples, although many fine fruits of the latter were exhibited. Some splendid Pears were shown. Grapes were not very good in most of the classes devoted to them, although, of course, there were some exceptions. They were, however, a long way below the standard of quality set up at the Shrewsbury Show. Competition was keen in some of the classes, and very poor in others. The exhibit of fruit trees in pots and fruits shown by Messrs. T. Rivers and Son, Sawbridgeworth, obtained the gold medal of the Royal Horticultural Society, and also the Sherwood silver cup, which was given for the best collection of British fruit in the show. The fruit committee met on Tuesday for the purpose of making awards to new fruits. Many were shown, but only one award of merit (to a Melon) was given.

In our next issue we shall give a full report of the various conferences which were held.

DIVISION I.—FRUITS GROWN UNDER GLASS OR OTHERWISE.

Gardeners and Amateurs only.

Class 1 was for a collection of nine dishes of ripe dessert fruit. There were three entries, the first prize being won by Mr. Goodacre, gardener to the Earl of Harrington, Elvaston, Derby. The Grapes Black Alicante and Muscat of Alexandria, Ribston Pippin and Cox's Orange Pippin Apples, Peaches Golden Eagle and Sea Eagle, Pears Doyenné du Comice and Souvenir du Congrès, and Melon The Countess were the fruits shown, and all were first-rate. Second, Mr. J. Dawes, Ledbury Park Gardens, Ledbury; third, Mr. J. Lock, Oatlands Lodge Gardens, Weybridge.

In the class for a collection of six dishes of ripe dessert fruit, there were also three entries. Mr. J. C. McPherson, Londesboro' Gardens, Market Weighton, was first. Gros Colmar and Muscat of Alexandria Grapes, Princess of Wales Peach, and Cox's Orange Pippin Apple were excellent. Mr. W. H. Bacon, The Mote Gardens, Maidstone, was second; and Mr. W. Howe, Park Hill Gardens, Strat-ham, was third.

For six distinct varieties of Grapes, three bunches of each, there was only one exhibitor, Mr. W. Mitchell, Chilworth Manor Gardens, Romsey, winning first prize with an excellent lot. Mrs. Pince, Gros Maroc, Lady Downe's, Muscat of Alexandria, and others were finely shown.

For four varieties of Grapes (to be selected from specified sorts), Mr. W. Taylor, Tewkesbury Lodge Gardens, Forest Hill, won first prize, the Muscat of Alexandria and Madresfield Court being the best. There were no more competitors in this class.

The first prize for three bunches of Black Hamburgh Grapes was won by Mr. W. Mitchell, Chilworth Manor Gardens, with splendidly finished bunches; Mr. W. Harrison, Hallingbury Place Gardens, Bishop's Stortford, was second; and Mr. J. H. Goodacre third. There were four entries in this class.

Three bunches of Grape Mrs. Pince: First, Mr. W. Mitchell, Chilworth Manor Gardens, with very fine fruit; second, Mr. G. J. Squibbs, Whittlebury Lodge Gardens, Towcester. One more entry.

For three bunches of Alicante Grapes, Mr. H. H. Brown, Castle Hill Gardens, Englefield Green, won first prize with large bunches, though the berries were small; second, Mr. G. J. Squibbs, Whittlebury Lodge Gardens; third, Mr. W. Howe, Park Hill Gardens. There was one more entry.

Mr. W. Mitchell, Chilworth Manor Gardens, won first prize out of four entries for three bunches of Madresfield Court Grapes; the berries were splendid; second, Mr. W. Taylor, Tewkesbury Lodge Gardens, Forest Hill; third, Mr. W. Harrison.

For three bunches of any other black Grape, Mr. W. Harrison, gardener to Colonel Archer Houbton, Bishop's Stortford, was first with good fruits of Gros Maroc; second, Mr. W. Mitchell, Chilworth Manor Gardens, with the same variety; third, Mr. H. H. Brown, Englefield Green, with Lady Downe's. There were three more entries.

There were twelve competitors in the class for three bunches of Muscat of Alexandria Grapes, the first prize being won by Mr. J. H. Goodacre, Elvaston Castle Gardens, Derby, with splendid fruit; second, Mr. W. Camm, gardener to Major Hibbert, Ashby St. Ledgers, Rugby, with less shapely bunches; third, Mr. W. Taylor, Tewkesbury Lodge Gardens, Forest Hill.

There were only three exhibitors in the class for three bunches of any other white Grape, Mr. Max Michaelis, Tandridge Court, Oxted, being first with Mrs. Pearson; second, Mr. J. Pitts, Pett Place Gardens, Charing, Kent, with the same variety; third, Mr. W. Taylor with Chasselas Napoleon. There were no exhibits in the class for three bunches of any Frontignan varieties.

For a collection of hardy fruits in a space not exceeding 12 feet by 3 feet, Mr. J. Dawes, Ledbury Park Gardens, Ledbury, and Mr. J. Cornford, Quex Park Gardens, Isle of Thanet, were equal firsts. The best dishes in the latter's collection were Pears Doyenné Boussoch, Pitmaston Duchess, Beurré Superfin, and Plum Cox's Golden Drop. Among Mr. Dawes' fruit Apples Warner's King, Pott's Seedling, Allington Pippin, Colonel Vaughan, and others were good. The second prize was won by Mr. W. H. Bacon, The Mote Gardens, Maidstone.

DIVISION II. Nurserymen only.

Fruit grown entirely out of doors, to cover 24 feet run of 6 feet tabling: The first prize was won by Messrs. George Bunyard and Co., Maidstone, with specimens that were remarkable for fine colour and large size. Apples such as Wealthy, Gascoyne's Scarlet, Baumann's Red Reinette, and others were brilliantly coloured. Second, Messrs. Cannell and Sons, Eynsford, Kent, with an exhibit that contained many very fine Apples, large and well coloured.

Fruit grown entirely out of doors, to cover 16 feet run of 6 feet tabling: First, Mr. John Basham, Bassaleg, Mon., with very good fruits, although the colour of the Apples was not very good on the whole. Peasgood's Nonsuch, Bramley's Seedling, New Hawthornden, Lane's Prince Albert, James Grieve, and others were well represented. The King's Acre Nurseries, Limited, Hereford, were second with an excellent collection of fruit, the Apples being very fine; third, Messrs. Paul and Son, Cheshunt.

For a collection of orchard house fruit and trees, to cover staging 24 feet by 6 feet, the first prize, a gold medal, was obtained by Messrs. T. Rivers and Son, Sawbridgeworth, with a magnificent exhibit. The trees bore heavy crops of large fruits, one tree of Cox's Pomona, bearing some thirty fruits, being very fine. Another of Gascoyne's Scarlet carried two dozen fruits. Some of the fruits in baskets were perfect specimens. Those of Cox's Orange Pippin, The Queen, King of Tompkins County, Peasgood's Nonsuch, Gascoyne's Scarlet, and Pears Mag-nate, Pitmaston Duchess, and Parrot, as well as several sorts of Plums, were as fine as could be wished. The Sherwood Silver Cup for the best exhibit of British fruit in the show was awarded to this display. The second prize, the Hogg Memorial Medal, was won by Messrs. George Bunyard and Co., Limited, Maidstone, with a very fine exhibit also; the fruits on the trees lacked colour somewhat perhaps, but the crops were heavy. The dishes of fruit, especially of Apples Emperor Alexander, Gascoyne's Scarlet, and Byford Wonder, Pears Beurré Diel, Duchesse d'Angoulême, Durondeau, and others; and Plums and Peaches were very fine.

DIVISION III.

Market Growers only.

The first prize for a collection of fruit to cover 18 feet run of 6 feet tabling was won by Mr. W. Poupart, Marsh Farm, Twickenham, with an excellent lot of medium-sized fruits of Apples Pott's Seedling, Yorkshire Beauty, Allington Pippin, Sandringham, King of the Pippins, Pears Pitmaston Duchess, Durondeau, and others. A second prize was awarded to Messrs. W. J. Lobjoit and Son, Heston Farm, Hounslow, for market-grown fruit to cover 12 feet run of 6 feet tabling.

DIVISION IV.—FRUITS GROWN ENTIRELY IN THE OPEN.

Gardeners and Amateurs only.

Apples, twenty-four dishes, distinct: First, Mr. C. Crane, gardener to Lieutenant-Colonel Borton, Hutton, Kent, with very fine fruits, both of dessert and cooking sorts. James Grieve, Emperor Alexander, Baumann's Red Reinette, and The Queen were specially notable; second, Mr. J. Dawes, Ledbury Park Gardens, Ledbury, with splendid fruits also; third, Mr. J. Salter, Woodhatch Lodge Gardens, Reigate. A most interesting exhibit in this class was from Mr. Henry Whiteley, St. Marychurch, Torquay. Mr. Whiteley has less than an acre of land, which he cultivates altogether without help. He showed some excellent fruits gathered from trees planted in 1903.

Apples, eighteen dishes, distinct: First, Mr. T. Challis, Wilton House Gardens, Salisbury, with a beautiful lot of fruits, fresh, clean, and richly coloured; second, Mr. J. Pitts, Pett Place Gardens, Charing; third, Mr. J. Stevenson, Merley House Gardens, Wimborne.

Apples, twelve dishes, distinct: First, Mr. W. Strugnell, Rood Ashton Gardens, Trowbridge, with very fine fruits indeed; second, Mr. J. E. Allan, Ashurst Park Gardens, Tunbridge Wells; third, Mr. J. W. Barks, Castle Hill Gardens, Bletchingley.

For six dishes, distinct, of cooking Apples, the Hon. John E. de C. Boscawen, Tregre, Perrenwell, was first with splendid fruits; second, Mr. C. Crane, gardener to Lieutenant-Colonel Borton, Hutton, Kent.

For six dishes of dessert Apples Mr. Crane was first, Gascoyne's Scarlet and others being splendidly coloured. Mr. Squibbs, Whittlebury Lodge Gardens, Towcester, was second.

The exhibits in the class for eighteen dishes of dessert Pears made a splendid display. Mr. J. Dawes, Ledbury Park Gardens, was first with a very good collection. Fondante d'Automne, Durondeau, Beurré Superfin, Souvenir du Congrès, and Beurré Fouquieray were some of the best. Second, Mr. W. H. Bacon, gardener to Sir Marcus Samuel, Bart., The Mote, Maidstone, with fine fruits also; third, Mr. J. Cornford, Quex Park Gardens, Isle of Thanet.

Twelve dishes, distinct, of dessert Pears: First, Mr. A. Basile, Woburn Park Gardens, Weybridge, with excellent fruits; second, Mr. C. Crane, Hutton, Kent.

For nine dishes of dessert Pears, Mr. W. Strugnell, Rood Ashton, was first Beurré Balthé Pêre was very fine. For dessert Pears, six dishes, distinct, Mr. W. Nancy, Upper Galton Park Gardens, Merstham, was first.

The first prize for three dishes, distinct, of stewing Pears was won by Major Powell Cotton, Quex Park, Isle of Thanet.

Mr. J. H. Goodacre, Elvaston, was first for a dish of Peaches; Mr. R. Alderman, Babraham Gardens, Cambridge, second. The best Nectarines were shown by Mr. A. Child, Cateby House Gardens, Daventry.

Of Plums, Mr. A. R. Searle, gardener to the Marquis of Northampton, Castle Ashby, was first for three dishes,

distinct; second, Mr. J. Dawes. The first prize for three dishes of Plums grown under glass was won by Mr. J. Vert, gardener to Lord Howard de Walden, Audley End.

The best dish of Plum Cox's Golden Drop was shown by Mr. W. Camm, gardener to Major Hibbert, Ashby St. Ledgers. Mr. J. Vert was first for a dish of any other dessert variety. The best dish of a cooking variety was shown by Mr. J. Taylor, Hardwicke Grange Gardens, near Shrewsbury. Mr. C. Page, Dropmore Gardens, Bucks, was first for a dish of Morello Cherries; and Mr. G. E. Crisp, South Croydon, for a basket of Grapes grown outdoors, with Black Cluster.

DIVISION V.—SPECIAL DISTRICT COUNTY PRIZES.

Gardeners and Amateurs.

In each of the following sections prizes are offered for the best six dishes, distinct, of Apples and the best six dishes, distinct, of dessert Pears. These two classes are repeated in each section, and are distinguished by AA (for Apples) and BB (for Pears). I

Open to Kent Growers only.

AA. First, Mr. C. G. B. Marsham, Beechy Lees, Seven-oaks (gardener, Mr. R. Edwards), with fine Cox's Pomona, Striped Beeding, and Allington Pippin; second, Mr. W. J. Chaston, Bromley. BB. Mr. Marsham was also first for Pears; second, Mr. E. Phillips, Sittingbourne.

Surrey, Sussex, Hants, Dorset, Somerset, Devon, and Cornwall.

AA. First, Mr. T. Turton, Sherborne Castle Gardens, Dorset, with good Cox's Orange Pippin, Mère de Ménage, and Peasgood's; second, Mr. Max Michaelis, Tandridge Court, Oxted.

BB. First, Mr. W. A. Cook, Leonardslee, Horsham, with Durondeau, Duchesse d'Angoulême, Doyenné du Comice (very fine); second, Mr. T. Turton.

Wilts, Gloucester, Oxford, Bucks, Berks, Herts, and Middlesex.

AA. First, J. B. Fortescue, Esq., Dropmore (gardener, Mr. C. Page), who had as dessert Cox's Orange and Wealthy, with Bramley's Seedling and Peasgood's as the best cooking sorts; second, E. S. Hanbury, Esq., Ware. There were six collections in this class.

BB. First, J. Westmacott, Esq., Wedbury, Ware, Herts (gardener, Mr. Gumbrell), with Durondeau, Doyenné du Comice, Pitmaston, &c.; second, Captain Farwell, Burnham, Bucks. Eight collections were staged.

Essex, Suffolk, Norfolk, Cambridge, Hunts, and Rutland.

AA. First, Colonel Archer-Houbton, Bishops' Stortford, whose King of Tompkins' County and Warner's King were very fine; second, Mr. Nicholas R. Page, Clacton-on-Sea.

BB. First, Colonel the Hon. C. Harbord, Norwich, with Doyenné du Comice, Marie Louise, Durondeau, &c.; second, Colonel Archer-Houbton.

Midland Counties.

AA. First, Mr. John Lee, Higher Bebbington, Cheshire, with superb Peasgood's and Tyler's Kernel; second, Mr. H. G. Wallow, Peterborough.

BB. First, Major Hibbert, St. Ledgers, Rugby (gardener, Mr. W. Camm), who had a fine set of dishes. Souvenir du Congrès, Doyenné du Comice, Beurré Superfin, and Durondeau were all splendid; second, F. Bibby, Esq., Hardwicke Grange, near Shrewsbury (gardener, Mr. Taylor. There was quite a strong competition.

Worcester, Hereford, Monmouth, Glamorgan, Carmarthen, and Pembroke.

AA. First, Mr. John H. Woottee, Byford, Hereford. Allington Pippin, Warner's King, and Peasgood's were the best fruits; second, Mr. Caddick, Ross.

BB. First, Mr. H. Lutwyche, Kynaston, Ross, with Doyenné du Comice, Mme. Trevey, and Duchesse d'Angoulême as the best; second, Mr. W. E. Hyde, Ledbury.

Other Counties of Wales.

AA. First, Colonel Cornwallis West, Ruthin Castle (gardener, Mr. H. Forder), with Warner's King, Ribston Pippin, and Alfriston as the best.

BB. The same exhibitor won for Pears, with very fine Beurré Hardy and others; Mr. W. H. Palmer, Queen's Gardens, Aberystwyth, was second.

There were no entries in the class for growers in the six northern counties of England and the Isle of Man.

Scotland only.

AA. First, Mr. C. Webster, Gordon Castle, Fochabers, N.B., with fine Worcester Pearmain, Gold Medal, and Byford Wonder; second, Mr. J. M. Stewart, Mollance Gardens, Castle Douglas.

BB. Mr. Webster was again first, Louise Bonne, Triomphe de Vienne, and Pitmaston Duchess being excellent; second, Mr. J. Day, Galloway House Gardens, N.B.

Ireland.

AA. First, Mr. W. Cavanagh, Borris House, County Carlow (gardener, Mr. F. Browne); Cox's Orange Pippin and Peasgood's Nonsuch were good; no second.

BB. The same exhibitor was first. Durondeau and Glou Morceau were good fruits.

There were no competitors in the classes open to Channel Island growers.

DIVISION VI.—SINGLE DISHES OF FRUIT GROWN IN THE OPEN.

Gardeners and Amateurs.

Adam's Pearmain.—There were seven competitors, Captain Farwell (gardener, Mr. W. Hutt), The Priory, Burnham, Bucks, taking the first place; second, Mr. T. Turton, gardener to the executors of J. K. D. Wingfield, Esq., Sherborne Castle, Dorset.

Allington Pippin.—Ten dishes were staged. First, Mrs. H. St. V. Ames (gardener, Mr. W. H. Bannister), Westbury-on-Trym, Bristol; second, Mr. N. R. Page, Clacton-on-Sea.

American Mother.—First, J. B. Fortescue, Esq., Dropmore; second, Mr. A. W. Metcalfe, Luton, Beds.

Blenheim Orange.—This class was poorly contested, only six dishes being staged. First, R. J. Lambert, Esq., Oxshott; second, Captain Farwell.

Cornish Aromatic.—Two dishes only. First, Hon. Justice Swinton Eady, Weybridge (gardener, Mr. J. Lock).

Cher's Orange Pippin.—This popular fruit brought eighteen competitors, the Rev. G. H. Engleheart, Dinton, Salisbury, coming first with a good dish; second, Lord Poltmore, Exeter.

Duke of Devonshire.—First, Walter A. Voss, Esq., Rayleigh; second, Marquis of Northampton.

Egremont Russet.—First, J. B. Fortescue, Esq., Maidenhead (gardener, Mr. C. Page).

James Grieve.—First, E. S. Hanbury, Esq., Ware (gardener, Mr. F. W. Church).

King of Pippins.—First, Mr. J. Howard, Newbury; second, Captain Farwell.

Lord Hindlip.—The only exhibit was from Mr. J. H. Wootton, Byford, Hereford.

Margil.—First, H. L. Lutwyche, Esq., Ross, Hereford (gardener, Mr. J. E. Jones).

Ribston Pippin brought a dozen dishes, Max Michaelis, Esq., Oxted (gardener, Mr. Simmons), taking first place; second, Captain Farwell, Bucks.

St. Edmund's Pippin.—Only one exhibitor came to the front, viz., C. P. Wykeham-Martin, Esq., Maidstone, who was awarded second prize.

Sturmer Pippin.—First, Mr. J. H. Wootton, Byford, Hereford.

Any other variety.—First, F. Paget Norbury, Esq., Malvern, with a splendid dish of Chas. Ross; second, H. H. Williams, Esq., Truro, who had Mabbott's Pearmain; third, Mr. T. Turton, Sherborne, with Gascoyne's Scarlet.

Alfriston.—First, H. H. Williams, Esq., Truro; second, Mr. J. Lee, Higher Bebbington.

Annie Elizabeth.—First, Mr. T. Turton, Sherborne Castle; second, Colonel Archer, Newbury, Ross.

Beauty of Kent.—First, Mr. Turton.

Bismarck.—Six dishes were staged. First prize, H. H. Williams, Esq., Truro; second, Mr. Turton.

Blenheim Orange.—Ten dishes were staged, eight of which were very fine. First, Jeremiah Coleman, Esq., Reigate; second, Mr. E. W. Caddick, Ross, Hereford.

Bramley's Seedling.—First, Mr. A. Basile, Weybridge; second, Jeremiah Coleman, Esq.

Dumelow's Seedling (syn. Wellington and Normanton Wonder).—First, Mr. Alfred Tidy, Maidenhead.

Gascoyne's Scarlet.—First, Mr. J. Lee, Higher Bebbington, Cheshire, with giant fruits; second, Jeremiah Coleman, Esq.

Golden Noble.—First, Jeremiah Coleman, Esq. (gardener, Mr. W. P. Bound), who had grand examples; second, Mr. A. Tidy, Maidenhead, whose fruits were also excellent.

Hornmead Pearmain.—First, Mr. E. W. Caddick, Hereford.

Lane's Prince Albert.—First, Mr. E. W. Caddick, Hereford, seven dishes only being staged of this excellent fruit.

Lord Derby.—First, H. L. Lutwyche, Esq., Ross (gardener, Mr. J. E. Jones). Nine dishes were staged.

Mère de Menage.—First, Mr. T. Turton, Sherborne Castle, with big fruits of this gigantic if ugly variety.

Newton Wonder (open only to exhibitors living in Cardigan, Radnor, Shropshire, Stafford, Warwick, Northampton, Bedford, Cambridge, Essex, or counties further north).—First, Mr. F. Edenborough, Rayleigh, Essex.

Newton Wonder (open to exhibitors south of the above-named counties).—First, F. Paget, Esq., Norbury, Malvern; second, Mr. E. W. Caddick, Hereford.

Peasegood's Nonsuch.—Six dishes only represented this high-class fruit, Mr. E. G. Hanbury, Poles, Ware (gardener Mr. F. W. Church), taking first place; second, Mr. R. P. Greg, Buntingford, Herts.

Pott's Seedling.—First, Mr. T. Turton.

Stirling Castle.—First, Mr. J. Lee, Higher Bebbington, Cheshire; second, Mr. E. W. Caddick, Hereford.

Tower of Glamis.—First, Walpole Greenwell, Esq., Godstone.

Warner's King.—First, Mr. J. Lee, with magnificent examples; second, Jeremiah Coleman, Esq., Reigate.

Any other variety.—First, Colonel the Hon. C. Harbord, Norwich (gardener, Mr. W. Allan), with Norfolk Beauty; second, Mr. T. Turton, with Tyler's Kernel.

PEARS.

Beurre Alexander Lucas.—First, Mr. T. Turton, Sherborne Castle.

Beurre Hardy.—First, Mrs. H. St. V. Ames, Westbury-on-Trym, Bristol (gardener, Mr. W. H. Bannister), whose dish was simply perfection.

Beurre Superfin.—First, Mr. T. Turton, Sherborne Castle, Dorset, with handsome fruits.

Charles Ernest.—First, Lord Poltmore, Exeter (gardener, Mr. T. H. Slade).

Comte de Lamy.—First, Colonel Archer Houbion, Bishop's Stortford.

Doyenne du Comice.—First, F. Leveston Harris, Esq., Dorking (gardener, Mr. J. McDonald), with a splendid dish.

Durondeau.—First, Colonel the Hon. C. Harbord, Gunton Park, Norwich (gardener, Mr. Allan); second, Mr. T. Turton, Sherborne, the fruits in both instances excellent.

Easter Beurre.—First, Colonel Archer Houbion.

Emile D'Heyst.—First, Colonel the Hon. C. Harbord, Norwich.

Josephine de Malines.—First, Mr. Turton.

Glou Morceau.—Again Colonel Harbord took the leading place, J. Westmacott, Esq., Ware (gardener, Mr. G. Gumbrell), coming second.

Louise Bonne of Jersey.—First, Mr. N. R. Page, Marine Parade, Clacton-on-Sea.

Marie Louise.—First, Colonel the Hon. C. Harbord, Gunton Park, Norwich (gardener, Mr. Allan).

Neuveville Fulvie.—First, Mr. Turton, Sherborne Castle Gardens.

Pitmaston Duchess.—This brought fifteen dishes, the majority being excellent, the first prize going to F. Leverton Harris, Esq., Dorking (gardener, Mr. J. McDonald), who had a grand dish of fruits; second, Captain Farwell, whose fruits were also of superb quality.

President Barabé.—First, Colonel Harbord, who was the only exhibitor.

Thompson's.—The same exhibitor was first also in this class.

Winter Nelis.—This brought but a poor display, J. B. Fortescue, Esq., Dropmore (gardener, Mr. C. Page), taking first place.

Any other variety.—This brought fourteen dishes, the first prize being taken by Seckle, from Mr. T. Turton, Sherborne Castle Gardens; second, Bauré Diel, from Mr. R. J. Lambert, Oxshott; third, Gansel's Bergamot, a superb-looking fruit from Jeremiah Colman, Esq., Reigate (gardener, Mr. Bound).

FRUIT AND VEGETABLE COMMITTEE.

Present: Mr. George Buyard (chairman), Messrs. H. Somers Rivers, P. C. M. Veitch, S. Mortimer, William Pope, H. Parr, Horace J. Wright, E. Beckett, William Fyfe, J. Lyne, G. Norman, J. Willard, Owen Thomas, George Wythes, A. Dean, W. Bates, John Busham, J. McIndoe, H. Markham, George Kelf, C. Foster, G. Woodward, W. H. Divers, J. Jaques, T. Arnold, W. Crump, and T. Coomber.

NEW FRUIT.

Melon Conference.—A green flesh variety, with thickly netted pale yellow skin; very juicy and sweet. Shown by Mr. W. Birkinshaw, The Gardens, Bridehead, Dorchester.

SCOTTISH HORTICULTURAL SOCIETIES.

SCOTTISH HORTICULTURAL ASSOCIATION.—The monthly meeting of the Scottish Horticultural Association was held in their rooms, 5, St. Andrew Square, Edinburgh, on the evening of Tuesday, the 3rd inst. There was a large attendance, presided over by Mr. J. W. M'Hattie, superintendent of Edinburgh Parks. Mr. M'Hattie made a feeling reference to the great loss sustained by the association through the death of Mr. David P. Laird, who was for some time the first treasurer of the association, and who had been a valued president in the year 1887. It was unanimously agreed that an expression of the regret and sympathy of the association with the relatives of Mr. Laird be sent to Mr. Eric Laird, son of the deceased gentleman. Afterwards a paper entitled "Some Details which Lead to Success" was read by Mr. William Galloway, who treated his subject in an interesting and practical way which gained him the attention and general approval of his audience. An interesting discussion took place after the reading of the paper, and Mr. Galloway was cordially thanked for an excellent address. There were several exhibits of considerable merit on the table, early Chrysanthemums taking a prominent place. Those sent by Mr. J. C. Young and Mr. Todd were much admired, and another exhibit which drew special notice was Lilium sulphureum from Messrs. Dicksons and Co.

MARYKIRK AND LOGIEPERT.—The annual meeting of this association was held in the Napier School, Craig, on the 29th ult., under the chairmanship of Mr. A. C. Donald, vice-president. An account of the income and expenditure of the association was read, from which it appeared that there was a small balance in favour of the society. Unfortunately, it had been necessary to reduce the prize money on account of the cessation of several large subscriptions, but it was expected that these would be resumed shortly. The report was adopted, and office-bearers and a committee were elected.

DUNDEE HORTICULTURAL ASSOCIATION.—The opening meeting of the new session was held in the Technical Institute, Dundee, on the evening of the 3rd inst. Ex-Bailie Melville, the honorary president, occupied the chair, and there was a good attendance. A presidential address was delivered by the president, Mr. William Grant, Fernhall Gardens, West Ferry, who had selected for his subject "Progress," the question discussed in it being "Are we better gardeners than those of an earlier age?" Mr. Grant was of the opinion that the gardener of earlier times was more devoted to his calling than the gardener of to-day. He took the view that in competition at shows the gardener of the present was more backward in the Dundee district than formerly. This was largely due to the employers, who were not so much interested as in the past, and in consequence the competition was getting more and more into the hands of amateurs. There was a spirited discussion, in the course of which some difference of opinion was taken with regard to Mr. Grant's views, but the value of the paper was universally admitted. The chairman expressed his opinion that employers made a great mistake in not encouraging their gardeners to compete at the shows. He thought, if they did so, that the young gardeners would take more interest in their work. Mr. Grant was thanked for his interesting address. The next meeting (on November 7) will be a "question night."

HOGG'S "HEREFORDSHIRE POMONA."—"J. D." writes: "I have six volumes of the 'Herefordshire Pomona,' with plates, by Hogg (unbound), in perfect condition, and should be much obliged if you would kindly let me know the approximate value of this. Perhaps some reader would kindly help our correspondent."

Obituary.—Mr. Gollan.—It is with deep regret that we have to record the death of Mr. William Gollan, superintendent of the Government Gardens, Lucknow. He was attacked with fever on August 29, and after five days the doctor pronounced it to be enteric. He was removed to the Ramsay Hospital, Naini Tal, on the 3rd inst., and passed away quietly there on the morning of the 12th inst. Mr. Gollan came out to India in the early eighties as superintendent of the Saharanpur Botanic Gardens. He was trained at the Edinburgh Botanic Gardens. His work at Saharanpur has year after year elicited the most appreciative notice from the Government of the United Provinces, and it is to his intelligent and able supervision that those gardens owe their present commanding position. He was not only a most capable and scientific horticulturist, but a botanist of no mean order. Economic botany was one of his strong points, while as a landscape gardener he had few equals. By his death the Government has lost one of its ablest horticulturists, Indian horticulture one of its best men, and we a close personal friend. It is exactly a year ago, to within five days, that Mr. Ridley died, whom Mr. Gollan succeeded at Lucknow, and barely a month ago since we last had the pleasure of seeing Mr. Gollan at Lucknow. In another five years he would have qualified for pension, so that he was only just turned fifty; a comparatively young man.—*Indian Gardening.*

GARDENING APPOINTMENTS.

MR. W. H. PAINE, Royal Gardens, Kew, has been appointed head gardener at the Industrial School in connexion with the Educational Committee of Sheffield.

MR. ALEXANDER KINNAR, JUN., at present forester to the Earl of Galloway, has been appointed head forester to the Earl of Mansfield on his Perthshire estates, in succession to the late Mr. Pritchett. Both his grandfathers were long in the employment of the Mansfield family on their Scone estates.

TRADE NOTE.

KELWAY'S MANUAL.

It is little to be wondered at that gardening has so many devotees in every degree and station in life, and to all can confidently be recommended "Kelway's Manual," published by Messrs. Kelway and Son, Langport, Somerset. This, which has just reached us, contains no less than 360 pages, and probably as many lovely illustrations, and is just crammed with information upon everything appertaining to seeds, bulbs, plants, trees, and kindred subjects. This manual will be sent to any address on application, and we must say that it is an invaluable work of reference that ought to be in the hands of everyone interested in the growth of flowers.

THIRTEENTH ANNUAL SALE.

MILFORD NURSERIES, MILFORD,
Near Godalming, Surrey.

HIGHLY IMPORTANT THREE DAYS' SALE OF FIRST-CLASS NURSERY STOCK.

MESSRS. MELLERSH have received instructions from Messrs. Maurice Young and Son to SELL by AUCTION, on the Premises, the Milford Nurseries, Milford, on

TUESDAY, WEDNESDAY, and THURSDAY,
Oct. 31st, Nov. 1st and 2nd, 1905,

at 12 o'clock each day, a large quantity of exceptionally well-grown

NURSERY STOCK,

lotted to suit all classes of buyers, comprising about 2,000 specimen Evergreens and Conifers, in borders from 2 to 12ft., consisting of Piceas, Abies, Pinus, Cupressus Lawsoniana, Fraserii, Erectas, Coruella, etc., Thuja, Cedrus deodara, Aucubas, Laurels, Hollies, Golden Junipers, Golden Yews, etc., several thousand well-grown Ornamental Foliage Trees, etc., from 8 to 10ft., comprising Youngs' Purple Norway Maple, Laburnums, Horse Chestnut, London Plane, Silver Birch, Youngs' Weeping Birch, Poplars, etc. A quantity of Hardy Heaths, Double Gorse, Azalea, Pontica, etc., large quantity of Transplanted Forest Trees, standard and pyramid Fruit Trees, Gooseberries, Currants, etc., standard and pyramid Flowering Crabs, Ornamental Deciduous Trees, etc.; 1,000 standard and dwarf H.P. Roses, of the leading kinds, Sweet Briar, Roses in pots, Clematis, Ivies, Ampelopsis, Honeysuckle, Passionflower, etc., Rhododendrons, finest named varieties, Hybrid Seedlings, and Ponticum, 1,500 fine Bushy Laurels, 2 to 4ft., and a large quantity of other Plants and Shrubs, fully described in catalogue. Catalogues of Messrs. MELLERSH, Auctioneers, Godalming.

THE GARDEN.

No. 1770.—VOL. LXVIII.

OCTOBER 21, 1905.

THE FRUIT INDUSTRY.

HOW TO MEET FOREIGN COMPETITION.

A GREAT fruit show was held in the Royal Horticultural Society's hall in Vincent Square, Westminster, on the 10th, 11th, and 12th inst. In conjunction with it a series of conferences was arranged under the joint auspices of the National Fruit Growers' Federation and the Royal Horticultural Society. The first day, under the presidency of Sir Trevor Lawrence, Bart., K.C.V.O., was devoted to the subject of "Foreign Competition, and How to Meet It," and to "The Grading and Packing of Fruit."

The conference on Tuesday was no doubt a marked success. The lecture-room in the new hall, in which it was held, was crowded, and the proceedings were marked with much enthusiasm. Sir Trevor Lawrence, in his opening remarks, made allusion to the fact that of recent years the conviction had been gradually forcing itself upon the public mind of the great value of fruit and vegetables as articles of food, and that the consumption had enormously increased; so much so that during last year the large sum of upwards of £4,500,000 sterling had been paid for imports of hardy fruits alone, such as can be grown as well, or better, in this country than in any other. Here we can only indicate a few of the points of great importance dwelt upon by readers of papers and the interesting discussions which followed. A full report appears elsewhere. It very clearly came out that one of the chief causes of failure in commercial fruit growing in this country must be attributed to the wretched quality of the greater portion of English fruit placed on the market. The cause of this in a great measure must be laid at the door of the proprietors of orchards, who have neglected to grub up worn-out trees and replant with young ones from time to time, in order to keep up a succession of young, vigorous, and fruitful trees. The old orchards of England are at this day a pitiable sight, and a humiliating monument to the neglect to which they have been subjected. It was clearly manifested at the conference that to young fruit plantations of the right varieties we must look for success in the growth of fruit in the future.

Trees to Plant.—The only successful way is to plant young bush and half-standard

trees by the acre on arable land, which can be cultivated and kept clean cheaply by the horse hoe. Supposing a field (or fields) is to be planted, it is better to plant the trees in belts of, say, twenty rows each, and leave an equal space between each belt for the cultivation of vegetables or some dwarf fruits. By adopting this mode of planting the trees are better exposed to light and air than if the whole field were planted, the result being stronger and more fruitful trees.

Varieties to Plant.—One of the most fatal mistakes we have made in the past has been to grow too many sorts. This must be avoided, and only sure bearers be planted which grow well and bear fruits of good quality. The public must have a fruit attractive to the eye, and we shall have to produce such an Apple (we have ample choice) not in bushels, but in tons of the same sorts.

GRADING AND PACKING.

The paper read on this subject, describing the way this was carried out in Ireland on the experimental fruit farm established by the Board of Agriculture in that country, was most interesting and instructive, and, we think, not a little surprising to many present at the conference. It appears that for the better collection and disposal of Irish fruit, centres have been formed in various parts of the country, to which growers are able to send it, as it were, in the rough and in bulk. It is at these depôts that the fruit is graded and packed and forwarded to markets. So rigidly enforced is the practice of grading, that rings of different sizes are prepared, through one of which each fruit has to pass according to its size, the first grade through the largest, the second through the next largest, and in some cases a third grade is made.

The greatest importance is attached to packing, and especially to the first grade fruit. It is recommended that each fruit (meaning Apples and Pears more particularly) should be placed in tissue paper and laid in single layers in boxes of different sizes in as attractive a manner as possible, so as to captivate the public eye when displayed in shop windows. A great point was also made of the fact that the boxes used should be of a non-returnable nature. These boxes, when manufactured in large quantities, can be bought for the small sum of from 4d.

to 7d. each, according to size, and at this price the cost does not amount to more than the railway charge for return of empties. Not the least of the advantages this system affords is the encouragement and service it renders to the small grower, as his little packet of fruit, according to its quality, will stand the same chance of making a good price as will that of the largest grower. It transpired at the meeting that in Canada, where the Dominion Government have long had established similar methods of grading and packing, the offence of placing fruit of inferior quality at the bottom of a box and better on the top subjects the packer, after the third warning, to three months' imprisonment.

RESULTS OF SALES.

As to the quality of the fruit, with regard to English and American, we have had opportunities during the last year or two (at exhibitions of Colonial fruits in London) of comparing this point, and we think there is no question that, with the exception of Newtown and New York Pippin, the flavour of English Apples compares most favourably with imported ones. On this point, Mr. Moore of Glasnevin said he felt sincerely sorry when he saw people going in to buy soft, mealy, bruised muck, because it was an American Apple!

THE CLASSIFICATION OF THE NARCISSUS.

THE classification of the Narcissus (Daffodil), with its multitude of new garden forms, is a much-vexed question, and a difficult question, too. No one seems to be quite satisfied with the present system. Seedling raisers, growers of large collections, judges, exhibitors, bulb merchants, all find fault with it, and yet its defects are allowed to remain unremedied.

By the present system is meant that arrangement which is still most generally adopted both in England and elsewhere; which was followed year by year in Messrs. Barr and Son's Daffodil catalogue up to and including their autumn catalogue of 1902, and which is based—though with some modifications, not all of them fortunate—on Mr J. G. Baker's botanical classification of the genus *Narcissus*, first published in the *Gardener's Chronicle* in 1869.

In 1902-3, in consequence of the widely-expressed feeling that some alteration was

needed, Messrs. F. W. Burbidge and P. R. Barr proposed a new classification, which was fully set out by Mr. Burbidge in an article in the *Journal of Horticulture* of September 10, 1903. This new classification has been used in the more recent issues of Messrs. Barr and Son's catalogue, but has not yet received any authoritative sanction, and though proposed by two Daffodil experts, whose names must necessarily carry great weight, and ensure for it careful consideration, it does not seem to be generally considered a satisfactory solution of the difficulty. It does good work in suggesting several excellent new sections for types which cannot be properly classified under the present system; but it, unfortunately, reproduces and greatly accentuates a serious defect of that system, as will be noticed in the course of this article.

After some discussion of this scheme, the Narcissus committee of the Royal Horticultural Society last year appointed a sub-committee to consider the subject, and to suggest such improvements in classification as would meet the requirements of the flower in its present state; but very little progress has yet been made, and the work entrusted to this sub-committee will, no doubt, be expedited if Daffodil lovers who have given careful thought to the subject will make their views public and so bring them under discussion. The suggestions now put forward are not, of course, proposed as a final solution of the difficulty, but as a step in what is thought by many to be the right direction, and as a protest against any system of classification of the Narcissus, which is so exclusively based upon crown and perianth measurements as to lose sight of the other guiding marks which Nature has given us.

There are two serious defects alleged against the present system—(1) inconsistency, (2) inadequacy.

I.—First, then, as to inconsistency. Nature has, by certain easily ascertained characteristics, divided the genus *Narcissus* into two great divisions, with an intermediate division between them. On the one hand we have the true Daffodils, with clear distinguishing marks of their own. These have (a) the corona or crown of the flower of a more or less trumpet-like shape, very large in proportion to the size of the perianth tube, and, roughly speaking (for there is some slight range of variation), as long as, or longer than, the perianth segments. The true Daffodils, moreover, have (b) a very distinct and characteristic appearance, arising from the conformation of the perianth segments and the angle which separates the segments from the corona. They also have (c) all the six stamens of equal, or nearly equal, length inserted near the bottom of the perianth tube, standing away free from the side of the tube, and reaching well up the corona (about halfway in one species, and in another to the very mouth of the trumpet), while all the six anthers form one cluster round the style. It may further be useful to note that (d) none of the true Daffodils produce more than a single flower on a stalk. On the other hand, we have a very different type of flower, the true Narcissi. In these (a) the corona is in form like a saucer, or, in some cases, a short cup, very small in proportion to the length of the perianth tube, and also as compared with the perianth segments (though there is a much greater variation here than in the case of the true Daffodils*). (b) The segments differ among other things from those of most

of the true Daffodils in standing out more widely, at about a right angle to the tube, or even at a recurring angle. (c) The six stamens are divided into two sets of three each, of which one set is inserted near the mouth of the perianth tube, and the other further down, but still high up in it, three of the anthers standing up above the other three. And (d) the true Narcissi are chiefly made up of forms which are bunch-flowered—i.e., produce several flowers on each flower-stalk—and forms which have two or three flowers on a stalk, though they include the very important species *Poeticus*, which is single flowered.

S. EUGENE BOURNE.

(To be continued.)

PRIZES FOR GARDENERS. OCTOBER.

PLANTING FRUIT TREES.

A First Prize of FOUR GUINEAS,

A Second Prize of TWO GUINEAS,

A Third Prize of ONE GUINEA,

And a Fourth Prize of HALF-A-GUINEA

will be awarded to the best answers to the following questions:

I. State the best time for planting hardy fruit trees, to include Apples, Pears, Peaches and Nectarines, Plums, Cherries, Gooseberries, Currants, and Strawberries, giving the distances apart to plant each.

II. Describe the composition of the soil most suitable for the culture of each of the above.

III. Describe your methods of planting, also of the preparation of the soil, both for orchard and garden planting, and staking and protection after planting.

IV. What points would you look for in selecting young trees to plant?

V. Do you recommend the use of manure at planting time? If so, what sort of manure, and how much for each tree? Describe the methods to adopt so as to secure the best growth during the summer after planting.

VI. Should young fruit trees, especially orchard trees, be pruned at planting time, or should this operation be deferred to the second year? Give particulars of the pruning you recommend, whether for the first or second year.

VII. The best position in which to plant an orchard, and how to plant it.

Answers to the above questions must be addressed to the Editor of THE GARDEN, 20, Tavistock Street, Covent Garden, W.C., and the envelope be marked "Competition." October 31 is the latest day for sending in. Both amateur and professional gardeners may compete. The name and address of the competitor must be written on the MS., and not upon a separate piece of paper. The Editor cannot undertake to return the MS. of unsuccessful competitors.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

October 24.—Royal Horticultural Society's Exhibition of Home-grown Vegetables. Lecture by Mr. W. P. Wright on "Potatoes."

October 31.—Southampton Horticultural Show (two days).

November 7.—Royal Horticultural Society's Meeting. Lecture by Dr. J. A. Voelcker, M.A., on "Chemistry in Relation to Horticulture"; Birmingham Chrysanthemum Show (three days).

* The relative measurements of crown to perianth segments in the true Narcissi range from almost nothing in the nearly crownless species *Broussonetii*, and one-sixth or one-eighth in the *Poeticus* species, to as much as one-third, or even more, in some of the bunch-flowered forms.

Choisya ternata flowering twice.

—It may be interesting to some of your subscribers to know that I planted a few rooted cuttings of *Choisya ternata* here when I entered into occupation in September, 1899. All did well, and have grown into large bushes and flower well in early summer; but what has surprised me is that one of them is now in flower for the second time this year. [*Choisya ternata* frequently blooms twice a year, especially in the Southern Counties—Ed.]—BERNARD KENDALL, 8, Harold Road, Upper Norwood.

The Bedford Park Gardening Society.

—We are pleased to know that the famous gardening society in Bedford Park is about to be revived. A meeting was held recently and largely attended. Mr. Maurice B. Adams, F.R.I.B.A., was elected president, and on the proposal of Mr. Maurice B. Adams the following committee was elected, with power to add to their number: Messrs. George Haite, H. O. Nice, P. W. Ramsay Murray, J. T. Carr, Drs. T. H. Bishop and S. F. Holloway, the Rev. J. Carmel Robinson, Mrs. Carter, Mr. Allport, jun., Mr. E. Blair Leighton, Mr. E. T. Cook, and Mr. Howard Unwin. Canon Horsley lectures on November 25.

St. Dabeoc's Heath.—The order Ericaceæ includes a number of our most charming shrubs, many of them being very floriferous and of dainty appearance. Unfortunately they are not everybody's shrubs, for they can only be cultivated successfully in ground that is comparatively free from lime. In districts where lime is found in quantity in the soil they cannot be said to succeed in a satisfactory manner, even when large beds have been taken out and filled up with peaty material. *Daboecia polifolia* is one of the best. Its flowering period is extended over a considerable time, as it commences to blossom in spring, produces flowers throughout summer, and finishes up in late autumn with a fine display. It is found in a wild state in Western Europe, and is sometimes met with in Ireland. Mature plants are often 1 foot or more high, and 1 foot to 1½ feet through; it is, however, usually met with in a smaller state. The leaves are small and evergreen, the flowers red, inflated, and drooping, and borne in upright racemes. There are several varieties, one, alba, having white blossoms; purpurea, purple; and bicolor, a mixture of white and purple flowers. It is readily increased by means of cuttings, seeds, or layers, which may be taken in hand either in spring, summer, or autumn.—W. DALLIMORE.

A distinct Gloriosa.—There was recently flowering at Kew a very pretty and uncommon *Gloriosa*, under the name of *Gloriosa virescens grandiflora*. The typical *G. virescens* is perhaps better known as *G. Planti*, having been sent from Natal by a Mr. Plant in 1851. It is a common plant in several parts of tropical Africa. This species differs from the well-known *G. superba* in the segments being broader, while they are not crisped as in the older kind. In colour the flowers are bright red and yellow, but in this respect they vary a good deal, as if heavily shaded they are much less bright than when well exposed to the light. The variety *grandiflora* is readily distinguished from the type by the colour, which is a soft buff yellow. Though wanting in the bizarre coloration of *G. superba*, or the rich hues of the new *G. rothschildiana*, this yellow form is very distinct and pretty. As far as my observation extends (and I have met with the plant elsewhere than at Kew), the varietal name of *grandiflora* seems to be somewhat of a misnomer, as in size it does not appear to exceed that of the typical *G. virescens*. Though one of the oldest of exotic plants, *G. superba* was at one time very rarely seen, but within the last decade or so it has become far more popular. The generic name of *Methonica* is often used instead of *Gloriosa*.—T.

Chamærops excelsa in the open.

It may not be generally known that the beautiful Palm, *Chamærops excelsa*, will thrive when planted outdoors. The enclosed photograph which I have taken—[Unfortunately, not suitable for reproduction]—shows a fine specimen in the gardens of Mr. C. C. Shaw, Thornbank, Leamington Spa. It was planted outdoors four years ago, after growing for about twenty years in a large tub in a heated conservatory. It continues to grow well, and produces two or more spikes of flower every summer without fail. It has withstood three winters without the slightest protection, and 28° of frost have been registered on several occasions. Its height is 15 feet 3 inches.—WILLIAM BARTLETT, *The Gardens, Thornbank, Leamington Spa.*

Bowdon Amateur Horticultural Club.

The autumn meeting was held on the 29th ult., and proved very successful. Seventeen members staged a varied collection of autumn flowers, Roses and Chrysanthemums being much in evidence. Mrs. Hall, The Grange, Hale, and the president, Mr. G. A. Wright, F.R.C.S., obtained first and second place respectively, and were each awarded a certificate of merit. The hon. treasurer of the National Rose Society, Mr. H. E. Molyneux, read a most able and practical paper, entitled "The Evolution of the Garden Rose," to a large and appreciative audience, and also showed a number of photographs of Roses grown and growing in a small garden within five miles of Charing Cross as typical of what may be done with the queen of flowers in suburban gardens.

British Gardeners' Association.

This association, which is confined to professional gardeners only, continues to make steady progress. At the last meeting of the executive council, presided over by Mr. R. Hooper Pearson, eight new members were elected, bringing the total up to 683. As soon as the draft of the rules, prepared by the solicitors, has been settled in detail, it is proposed to issue them, together with the names and addresses of all the members. At present the members in various parts of the kingdom have no means of knowing who belong to the association in their own district, and it is hoped the list will prove of great value in remedying this state of affairs. If every member would introduce at least one new member before the list is sent to the printer, the executive council would feel greatly obliged. They also wish it to be as widely known as possible that there is no desire on the part of the association to interfere in any way with the arrangements between employers and their gardeners. On the contrary, the association is only too anxious to introduce professionally-trained men of good character to the notice of ladies or gentlemen requiring capable men to take charge of their gardens.—J. WEATHERS, *Secretary.*

Late-flowering Heath.—The late-flowering *Ericas* are an exceedingly beautiful set of shrubs which occupy quite as important a position in the ornamental garden in autumn as the early-flowering sorts do during late winter and early spring. The subject of this note, *E. maweariana*, is an autumn-flowering plant, and one of the prettiest and most rare. It is said to have originated or have been first brought to notice about twenty-three years ago, but it is only within the last two or three years that it has been seen in quantity, and even now in many trade establishments it is represented by a few pieces only. It is considered to be of hybrid parentage, though it is sometimes spoken of as a variety of *E. ciliaris*. This species is stated to be one of the parents, and *E. Tetralix*, the cross-leaved Heath, the other, and from the general appearance of the plant the statement would appear to be correct. As a rule it forms a compact plant, anything from 6 inches to 1 foot in height, with ciliated leaves and branches, the former being small, dark green, and produced in threes. The inflorescences are terminal, and in the form of

more or less conical, upright racemes, the individual blooms being large, inflated, and deep red. Usually the first crop of flowers appears in August, a later and better lot being borne during September and October. Like most other members of *Ericaceae*, a peaty soil is the most suitable for this plant, while in limestone soil it is useless to attempt its cultivation.—W. DALLIMORE.

Proposed United Flower Show in Scotland.

—A project is under consideration to hold the annual show of the Dumfriesshire and Galloway Horticultural Society alternately at different centres in Dumfriesshire, Kirkcudbrightshire, and Galloway, and efforts are being made to ascertain if the various local societies would act in conjunction with the central society in the years when its show would be held in their localities. As an initial step Messrs. R. G. Mann, secretary, and Mr. R. Service, a director of the Dumfriesshire and Galloway Horticultural Society, attended a recent meeting of the Newton Stewart Society for the purpose of having an interchange of opinion upon the subject. The meeting viewed the matter favourably, but it was agreed to discuss it at a future meeting.

THE FIRST FROSTS.

OVER level garden ways

Autumn glories flaunt ablaze:

Daisies—purple, mauve, and white,

Golden-rod a goodly sight,

Asters, Dahlias, by the wall

Giant Sunflowers lithe and tall,

Shining sceptres tipped with gold,

Standing by the gateway old.

Damask Roses red and late

Overtop the garden gate,

Heliotrope and Mignonette,

Drench the air with sweetness yet

From the borders; at midday

All is mellow, fair, and gay.

Who might guess at splendid noon

The nearing end, that sure and soon

This flame of gold and red must fade

To sombre tone and russet shade,

A quaker robe of dun to bear

Of late October's hueless wear?

Ah! Roses red and spears of gold

Burn to your latest splendours bold,

Daring defiance while ye may

To winds that rend and frosts that slay.

EDITH C. M. DART.

Solanum muticum.—This new *Solanum* was introduced about twelve years ago by Mr. Charles Sprenger, from Mexico, and was described as a new species by Professor N. E. Brown. It was lost, with many other plants, after his separation from his former partner, but I have discovered here an old plant in a small pot, and I believe this to be the only one in cultivation. It was planted in the shrubbery, and has done very well, being covered with hundreds of dark blue flowers. After the autumn rains I hope it will fruit. It is a noble shrub, and worth a place in every garden. It will prove quite hardy on a wall in sunny positions, with a little protection during the winter.—W. MULLER, *Vomero, Naples.*

Milan International Exhibition, 1906.—The first Italian International and Universal Exhibition, under the high patronage of his Majesty the King of Italy, will be opened in Milan on April 15 next. This exhibition will be on a large scale, and the success of its international character has been already assured by the participation of France, Germany, Austria, the United States, and other leading countries. The contents of the exhibition will be divided into nine international and one national section. A British Commission has been formed under the auspices of His Majesty's Government, which has made a grant of £10,000 for the creation of a British section. In spite of the shortness of time at its disposal, the commission has been fortunate

enough to secure in the various buildings space which, both in regard to area and position, will place this country on an equality with the various other foreign nations who will participate. Detailed information regarding the exhibition may be obtained by application at the offices of the British Commission, London Chamber of Commerce, 1 and 2, Oxford Court, Cannon Street, London, E.C.

The "Garden City" movement in Scotland.

—Arrangements have been made for a large meeting to be held under the auspices of the Garden City Association in the Synod Hall, Edinburgh, on Wednesday, November 1. The principal speaker will be Mr. H. Rider Haggard, who will give an address on the subject of "The Garden City and the Land Problem." The chair will be taken by the Right Hon. Lord Dunedin, formerly secretary for Scotland, and it is anticipated that the gathering will be one of the largest and most important upon the subject yet held in Scotland.

Stenoglottis longifolia.—Many of the terrestrial Orchids, native of South Africa, are by no means easy to grow, a charge that cannot be brought against *Stenoglottis longifolia*, for given ordinary greenhouse treatment it will both grow and flower well, though it is even better suited by a fairly humid atmosphere, such as *Masdevallias* and most *Odontoglossums* delight in. Regarded only as a foliage plant, this *Stenoglottis* is decidedly pretty, as it forms a perfect rosette of narrow, deep green leaves, about 6 inches long, with prettily undulated margins. The slender but erect flower-spike reaches a height of 18 inches or thereabouts, and bears on the upper half a large quantity of pleasing rosy purple blossoms, which are more or less dotted with a deeper tint. While this *Stenoglottis* may not find favour with the admirer of large flowers only, I know very few plants that can be as confidently recommended for the amateur who is anxious to grow at least a few things out of the common in his greenhouse. The plant remains in flower for at least two months. It thrives in a mixture of loam, leaf-mould, and sand, and needs good drainage, combined with a copious supply of water during the growing season, while at no time must it be kept dry, as it is evergreen.—H. P.

The Belladonna Lily (Amaryllis Belladonna).

—For some time past the *Belladonna Lilies* have been flowering freely at Kew, especially in a border along the front of House No. 1, near the main entrance from Kew Green. The Kew variety, known as *kewensis*, is in every way a great improvement on the type. The colour is a much deeper shade of rose, it is also more vigorous, growing 9 inches to 12 inches taller. Borne on a scape 3 feet to 3 feet 6 inches in height, each umbel consists of twenty-four to thirty flowers, while in the type it seldom exceeds a dozen. It is sweetly scented and for cut flower decoration at night is most effective. *Belladonna Lilies* are well worthy of a little care in planting, for when once established, beyond keeping the border clean and giving an occasional top-dressing, they require little further attention. A warm, sheltered, well-drained border at the front of a house or south wall forms an ideal spot for them. The soil should consist of good fibrous loam and brick rubble. The planting of the bulbs is best done in June or July, 6 inches to 8 inches in depth.—A. O.

Decorative Dahlias.—For garden and cut flower decoration, where bold, massive effects are required, the new giant-flowered decorative Dahlias will be found very useful. *Souvenir de Gustave Douzon* is one of the largest and best. It is a vigorous grower, and very free-flowering. Borne on stiff stalks the flowers are a pleasing orange-red colour. A bed containing upwards of 100 plants of this variety, near the Victoria Gate at Kew, is very striking. *Mme. van Den Dael*, a silvery pink variety, is almost as large. Two seedlings from this are

grand free-flowering sorts. Mlle. Hélène Charmet, a white variety, has wide florets. Jeanne Charmet is a shade or two deeper pink than the parent. It has a better habit and is more floriferous. A single variety, Twentieth Century, of recent introduction I believe from America, promises to be a useful acquisition both in the garden and for cut flower decoration. The colour is rosy pink, tipped white, with a ring of white around the disc florets.—A. O.

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C. HARMAN PAYNE.

(To be continued.)

DAFFODIL STALKS.

IT is surely a sign that the subject of the Daffodil has been written about from almost every point of view when the Editor asks me to write about their stalks. It certainly sounds a somewhat dry subject to start upon; nevertheless, I think we may get something interesting from it.

The Daffodil is pre-eminently a flower for cutting, and as such its value is much enhanced by a long stem. It is almost impossible to make a successful arrangement in a vase unless some at least of the stalks are long. Here I would insert a word of advice, namely, in cutting the blooms care should be taken to cut the tallest ones with as much stalk as possible, for they will be required for the highest part of the arrangement, and probably every quarter of an inch will be of value, while the shorter ones can only be used for the outer or front part of the arrangement, and may even be required to be shortened.

Again, there is great value in length of stalk in making up trade bunches for sale on the wholesale and retail markets. Long stems enable the bunchers to make a long, effective bunch, which will appear to contain fourteen or fifteen flowers instead of twelve,

the regulation number, and thus command a more ready sale. Besides all this there is a sense of proportion between the size of the bloom and length of stem; a large, bold flower does not show to advantage without a well-matched flower-stalk. For instance, would not Glory of Leyden and bicolor Grandee look more effective if mounted on stems some 2 inches or 3 inches longer?

Among my own seedlings I have discarded several with really good flowers because their stalks were either deficient in length or were not sufficiently sturdy to properly support the flower. The finest example of a long, well-formed stalk that I know of is King Alfred. The raiser of this fine variety once kindly sent me some blooms to photograph, and when the box came to hand it was so long that it looked as if some kind friend had sent me a present of an umbrella! I believe the longest stems were 23 inches. Emperor and Sir Watkin may also be mentioned as varieties having a sufficiency of stem, while, on the other hand, Captain and John Nelson and Grandee are decidedly too short on the leg, and they lose much value as cut flowers on that account. Of course, there is a place in most gardens of any size for the dwarfs of the Daffodil family as well as for the giants. As edgings and for rockeries such varieties as Nanus, Minor, Minimus, Queen of Spain, &c., are really charming, neither would their value be enhanced if it were possible to give them longer stalks.

There are other points about Daffodil stems to be considered as well as length. An important one is strength. A long stalk is useless if it is not strong enough to properly support the flower. What is more annoying than the behaviour of the old double incomparabilis and Orange and Sulphur Phoenix? Does not every grower know how the blooms of these go down right on to the ground under any slight stress of wind, rain, or frost, and how the blooms suffer in consequence? while after a heavy wind the blooms will often be found broken off and rendered useless.

The shape of a stalk is also an important matter. There is a good deal of diversity in this, some being very flat, some quite round, others elliptical with strong ridges, some are clumsily thick, while others are too thin, and, again, some are far more twisted than others. As examples of the round form we may quote the double incomparabilis, Mabel Cowan and Baroness Heath belong to the class with flattened stems, while Duchess of Westminster and Stella superba may be cited as examples of those having stems which are somewhat too thick. Now let us ask what influences the length of stalk? I can with certainty give a partial answer to this question, but there are other sides of it on which I should be glad to be enlightened. Soil certainly has a great influence. Our own soil at Lowdham, though retentive and moist, does not produce long stalks; Poeticus ornatus, for instance, often comes no higher than 9 inches, while the same variety in Lincolnshire and Holland will stand at an even height of 18 inches. Yet the Lincolnshire soil to the eye looks drier than ours. Time of planting has a marked effect upon the length of foliage and flower-stem, bulbs planted early will always develop a fuller and more perfect growth than those put in later. I have often noticed in our own grounds three different heights in one stock of bulbs, some of which were planted in August, others in

October, and others again in November. Depth at which the bulbs are planted also has its effect, shallow planting produces short stalks, and deep planting longer ones. Shelter from cutting winds will induce a taller growth; on the other hand, too much overhead shade produces long stalks and foliage at the expense of the bulb.

Moisture is, of course, another factor, though, as before stated, it does not always follow that a moist soil will produce good stems; in fact, a water-logged soil will have the opposite effect. Temperature has its effects; in a genial spring, with alternating sunshine and shower, the foliage and flower-stems become far better developed than in a season of biting east wind, such as we have had for the last few years. Again, I have noticed that when very warm weather follows a spell of cold the flowers are rushed out before the stalk has had time to grow or the blooms to properly develop. These are times of small and poorly-coloured flowers. Bulbs which have been planted for two years usually produce more flower-stalk than do those of one year.

Now I have given my experience as to what tends to give us the long stems we all covet, but the shape and quality of stem can only be influenced by breeding. One most notable success has been brought about by that great Daffodil hybridist, the Rev. G. H. Engleheart. He has produced several new double *Narcissi* with absolutely perfect stalks, which carry their flowers safely through any kind of weather that a Daffodil will stand up in at all. *Argent*, *Plenipo*, and *Dubloon* are three which occur at once to my mind; there may be more of them.

Now, although stalk is not of the first importance, and a poor bloom could never be redeemed by the most perfect stem, yet it is an important point in a plant, and I think seed-raisers should bear it in mind, and in making their crosses strive to choose at least one parent with a long and well-formed flower-stem. A cross will sometimes produce seedlings with much longer stalks than either of the parents. Among a successful batch of seedlings of my own, raised from *Minnie Hume* × *Mme. de Graaff*, there are some plants with much longer stalks than either parent can boast of.

Perhaps some of your contributors could throw light upon points on which I am at fault, and tell us what are the particular virtues in certain soils which are known to regularly produce flower-stems of more than ordinary length.

J. DUNCAN PEARSON.

The Nurseries, Lowdham, Notts.

TWO EARLY-FLOWERING TRUMPET DAFFODILS.

DURING recent years the great development of the *Narcissus* which has taken place has finally established its claim (if it were ever challenged) to be reckoned the most valuable of all our early spring flowers. One of the chief delights of the New Year is to watch the progress of the Daffodils as they spear up through the ground while the short days of winter are still with us, and how eagerly we anticipate the unfurling of the first flower!

To my mind the early-flowering varieties are amongst the most precious of the race, and should be given a place in every garden. In this short note space does not allow me to sing the praises of such delightful things as *Narcissus minor*, *N. minimus*, *N. nanus*, *N. obvallaris*, *N. pallidus præcox*, *Harbinger*, *Golden Spur*, *Pope's King*, *Ard Righ*, *Henry Irving*, &c., but only to remind planters not to overlook them in the rush for the admittedly larger and finer mid-season forms.

As a matter of fact, these early-flowering Daffodils have been sadly neglected by the hybridist; but it is to be hoped that this period of neglect has now come to an end, and that soon we shall not be able to complain of the scarcity of really good early flowers. Amongst those who are paying attention to these early flowers, Mr. J. D. Pearson has been particularly successful, and the two beautiful varieties here with figured were both raised by him. I have seen both of them growing at Lowdham, and can testify to their beauty.

Alert is a decidedly improved form of the *Tenby Daffodil* (*N. obvallaris*), with a lighter and firmer perianth and a wider and more reflexed trumpet. The *Tenby Daffodil* is peculiar in its likes and dislikes, and refuses to grow well at Lowdham, whereas *Alert*, though only a chance seedling from it, thrives there splendidly. It gained a unanimous award of merit at the Royal Horticultural Society's meeting on April 5, 1904.

Golden Trumpet is another very early flower, opening before *H. Irving* and *Golden Spur*, and possessing a better constitution than either. I was much struck with its vigorous growth and sturdy habit, and it may well be commended as a flower quite able to stand rough March winds. The whole flower is of a bright clear yellow and of pleasing appearance.

Worcestershire.

ARTHUR GOODWIN.

***Narcissus minimus*.**—This is a charming little flower of almost perfect shape, and most useful for naturalising on the lawn. We have just planted a colony of 250 bulbs.

DAFFODILS FROM SEED.

PERHAPS the first pod of seed gives more pleasure than any subsequent pods. You watch it swell, estimate the number of seeds, watch it ripening, carefully collect the pod and count the seeds—only six or seven. Then comes the sowing. The seeds are sown in a pan, and the seedlings are watched for until they are seen bursting through the soil, bringing with them their black, shiny shells. You feel sure one will be a *Scarlet Trumpet*, because it was crossed with *Will Scarlett*. The fact that it will be a matter of four to six years before you see



NARCISSUS ALERT. (From a photograph by Mr. J. D. Pearson.)

the bloom is forgotten. The next year it is decided to have a lot of seed, and the flowers that are intended to bear seed are prepared (take the anthers away and clear the pollen out), and with pleasure one sees the pods swell out. Select a bright sunny morning for your crossing and fertilising, and see that the pollen grains adhere to the pistil. The pods swell, the seeds ripen, and the earliest are gathered. Many of your big swollen pods will contain scarcely any seed. This will be very disappointing, but some of the smaller ones have a fair amount of seed, and so one is satisfied. The next question is "How to sow?" and it is resolved



NARCISSUS GOLDEN TRUMPET (REDUCED). See page 253.
(From a photograph by Mr. J. D. Pearson.)

to do this at once. The smaller lots are sown in pots, pans, and boxes. The larger quantities are sown in the open on deeply-dug, light sandy soil, with a little slaked lime to keep mining snails and worms away. Cover over with Pea covers to protect during the winter.

It is a great pleasure to have a good harvest of seed, because it is thought that something good must come from the manifold crosses. The pollen, too, has been used both ways.

The sorts that can be relied upon to produce seed are discovered, and this is a cause for congratulation. Year by year seed is raised, crossing many ways, both reasonable and ridiculous, because it is thought something unexpected may occur. The seedlings continue to increase, until one day the first seedling is seen showing bloom. It is a Pheasant's Eye, and it is jealously watched. One morning it opens and proves not as good as poetarum or half as good as flowers you have seen on the Pyrenees or in Switzerland. However, you console yourself with the fact that it is only three years old.

Next year these Pheasant's Eye are planted in the open, and not one blooms. We skip a year or two, and look on our fourth, fifth, and sixth year beds, and behold hundreds of spikes showing. Now is the consummation of our delight. The first thoughts are of

the bed of seedling Daffodils. There are three or four very fine red cups and one grand Daffodil. Morning follows morning with added eagerness till it permeates your family, and they all become enthusiasts. This goes on for five or six weeks.

Oh, says the youngest member of the family, there is one of those Weardale and Mme. de Graaff crosses, cannot you see it without the label (which, by the way, is often illegible), and that short orange trumpet, that is a Bernardi crossed with poetarum, certainly it is; there is another crossed with C. J. Backhouse, anyone can see that. Ah! there is Emperor \times Mme. de Graaff, you can see the inferior segments of Emperor certainly; your neighbours come in and they decide on the spot to get a collection and start seedling

raising. Once make a start, time goes on unheeded. I will now give a few hints to growers of Daffodils and seedling raisers, which are the result of personal experience.

In growing Daffodils deep digging is essential (bastard trenching), sandy loam is the soil they prefer, ground that has been well manured, and had at least one crop on before planting. Daffodils, where possible, should be grown on beds raised in the middle; say, 4 feet wide, 8 inches higher in the middle. The smaller and delicate sorts, such as Oriflamme, Southern Star, Dorothy Yorke, &c., require poorer soil, that is, more sandy; use rich loam and sand only, and it is well to cover the bulbs with sand when planting. The large trumpets prefer stronger soil, which must be deeply dug to ensure good drainage in the winter.

ABOUT SEEDLINGS.

To get seed it is necessary to take a note each year of sorts that seed with you, otherwise a lot of time is spent in preparing the blooms and fertilising. There are sorts that can be relied on, such as Mme de Graaff, Weardale Perfection, Emperor, P. R. Barr, Yellow Trumpet, and most of the sorts growing wild, such as Bernardi, Pyrenean, poeticus, triandrus albus, &c. Seedlings, too, generally produce seed freely.

The Ericas, King's Norton.

J. POPE.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

FASCIATED LILIUM AURATUM.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Having read with interest Mr. Fisher's note in THE GARDEN of September 30 on *Lilium auratum*, I should like to record a similar experience. I enclose a photograph of a *Lilium auratum* grown indoors this year. This particular bulb produced on one stem, which was flattened out to about 2 inches, a head of fifty blooms, all of which were perfect, though somewhat small. Another bulb had fifty buds, but five of these failed to open; another had thirty-eight, also on one stem; and another with three stems had twenty-six magnificent flowers. Is this abundance unusual, and do you attribute it to the season?

W. WILSON.

Oakwood Grange Gardens, Roundhay, Leeds.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I am sending you a photograph of *Lilium auratum* with a flat stem, being 1 inch wide at the base, and 4 inches wide at the top. It had seventy-six buds, but only thirty-six arrived at maturity.

S. LLOYD.

Rhagatt, Corwen, North Wales.

TRICHINIUM MANGLESII.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I was very pleased to see such a characteristic illustration of this pretty little greenhouse plant in a recent number of THE GARDEN, for it has long been a great favourite of mine, and one that, at least in my opinion, well merits extended cultivation. It is a native of the sandy districts of Australia, from whence it was introduced as long ago as 1838. According to the "Dictionary of Gardening" there are about fifty species of *Trichinium* known to botanists, but the only one in cultivation, as far as I know, is that at the head of this note.

When out of bloom it is insignificant, for, with the exception of the flower-spike, the entire plant rises but a short distance from the soil, and the small narrow leaves are not particularly noticeable. The inflorescence, as may be seen on page 225, consists of a large white, oval-shaped head, like a ball of fluffy cotton, from which the bright pink tips of the perianth protrude. Each head is on a thin wiry stem from 6 inches to 9 inches in length. A very desirable feature is that the flowers remain fresh and bright for a considerable time.

The rough and ready treatment so often given to the general run of greenhouse plants is not at all adapted to this *Trichinium*, but at the same time it well repays a little attention. A soil composed principally of good friable loam, with a little leaf-mould, thoroughly decayed cow manure, and silver sand, will suit it well, and a light airy shelf in the greenhouse is just the place for it. The season of blooming is, as a rule, from midsummer onwards, and the plant should be re-potted as soon as possible after the blossoms are past.

In carrying out this operation the greater part of the old soil should be removed. Overpotting must be specially guarded against, as a 5-inch pot is large enough for a well-developed specimen, in proof of which I may mention that two or years ago there was a plant at Kew in a pot of this size carrying twenty-four flower-heads. Its propagation, by means of root cuttings dibbled into pots of sandy soil and placed in a gentle heat, is not at all a difficult matter.

H. P.

DAFFODILS IN MEADOW AND LAWNS.

PLANTING DAFFODIL BULBS ON THE GRASS.

"Beside the lake, beneath the trees,
Fluttering and dancing in the breeze."

THE poet Wordsworth in his exquisite ode to the Daffodils struck a cultural note of some value, since "beside the lake" naturally indicates that these flowers love a cool, moist soil, and "beneath the trees" shows us that chequered shade is to their liking. The poet wrote of the wild Lenten Lily (in the Isle of Wight this popular name is often rendered "Lantern Lilies" by the peasantry) that coming before the swallow dares, paints our meadows with delight and takes the winds of March with beauty. Those who have seen our native wild Daffodil growing and flowering in clumps and cloud-like masses, literally by the thousand, in meadows and paddocks, or on grassy lawns, will not need to be told of their beauty and adaptability for being planted on the grass. The Snowdrop and the Daffodil may be considered as being really permanent hardy bulbous flowers, and to see them in orchards from Land's End to Scotland is one of the most cheerful sights of an English spring. Even as a wild plant the Daffodil varies considerably, the English, Welsh, and Scotch forms being quite distinct from each other. Not only are the native and most of the seedling or garden *Narcissus* perfectly hardy, but they flower at a time when they are most welcome, there being no other hardy bulbs that can quite take their place in March and April, when they usually flower. In a word, the *Narcissi* are what Parkinson (1629) called "timely flowers"; they supply a real want, and are to the springtide what the Rose is in summer, and the Chrysanthemum is to the autumn and winter of the year. No adverse tide of fashion is likely to affect the Daffodils as a garden flower, but even if such did occur they will be found naturalised in our meadows and copses, on old sloping lawns, and beside woodland walks for many, many years to come. Already they are established literally by the million all over the country, and in travelling by railway even they flash out here and there along the line as the trains rush by.

We now find *Narcissus*, and many other hardy bulbs, on the grass in all our public gardens, and in the parks nearly everywhere. To the artist, be he painter or landscape gardener, the beauty and effect of all bulbs, and especially of *Narcissus*, on the grass depends not so much on the actual quantities used, but rather on their tasteful grouping. The regular dotting of bulbs a foot apart or so on the grass of lawn or meadow rarely pleases anyone, nor will they do so until half the bulbs have died out and the others have formed dense

clumps or masses in an irregular way. To see perfectly natural grouping one must go to places where these bulbs have established themselves after having been planted many years, as in the old orchards of Devon or Cornwall, or in Kent and Hampshire, or in a few old gardens near London, or in the Midlands, or even as far north as Northumbria and bonnie Scotland. The bulbs on the grassy lawns and slopes of the mounds at Kew Gardens are very attractive in spring, but even there the planting was originally too regular and too diffused, large areas being regularly covered with bulbs without any dense masses or focus spots, or green breadths of grass on which the eye could rest.

The best object-lessons on artistic planting of bulbs on grass I have yet seen, outside of Nature's own perfect way, are at Great Warley in Essex; at Gravetye Manor, Sussex; at Straffan Gardens, County Kildare; and in the park at Narrow Water Castle in County Down. At the last-named place the clumps and masses of the common double yellow Daffodil *Van Sion* are very dense and effective on some slopes and mounds facing the hall door, and are very beautiful as seen with a background of Pine trees, the dark blue mountains, and the shimmering sea. At Castlewellan in County Down, also, the beautiful and early-flowering single Daffodil called *Countess of Annesley* and others are very handsome in dense groups and clustering clumps on the lawns. One of the most ancient of all the naturalisation areas I have ever seen is on the grassy slopes of St. Michael's Mount, which lies half a mile or so from Marazion in Cornwall. Not only are Daffodils growing there in quantity, but there are also enormous clumps and masses of various

kinds of *N. Tazetta*, which look as if they had been there from time immemorial, and it is one of the sights of Cornwall to see these when at their best. The fields of beautifully-grown *Narcissi* cultivated near Penzance and elsewhere in Cornwall, as also in the Scilly Islands, especially on St. Mary's Island and at Tresco, amply prove how suitable the soil and climate there really are for these flowers. To see *Narcissi* as naturalised at the places above named is to see how artistic and effective these hardy flowers can be. At the same time, I am quite sure there are many other places where they are quite as happy and as well grouped, but I can only now mention what I have seen. When we come to consider the best kinds of *Narcissi* to plant on the grass, the chances are that we are embarrassed by too many sorts rather than with too few. F. W. BURBIDGE, V.M.H.

(To be continued.)

THE POETS' DAFFODILS.

WRITING of *Narcissus poeticus*, a correspondent of mine says: "If I could only grow one flower it would be a Daffodil, and if only one Daffodil, certainly a Poet," and I can understand that feeling. To the man in the street, who only knows of one "Pheasant's-eye," it may come as a revelation that there are now some dozen or more of distinct varieties. The Rev. S. E. Bourne, in his "Book of the Daffodil," published in 1903, enumerates twelve new and improved sorts, and the section has been further enriched, even since then, by others of striking and pre-eminent merit, all of these flowers having, to the practised eye, marked individual characteristics, all of them being improvements on the



DAFFODILS AT WARLEY PLACE. (From a photograph by Miss Willmott.)

one or two old sorts we used to know, and all, with one or two exceptions, raised by that master of Daffodil craft, the Rev. G. H. Engleheart. Of the many beautiful things he has given us, the Poets' Daffodils seem to have first claim on his affections, and to illustrate this I may perhaps be allowed to quote his own words: "The pure and lovely colouring, the fragrance, and the vigorous constitution of the poeticus will surely bring it to the front of the whole genus." Some time back I had occasion to write to him asking about the parentage of one of the new Poets, and his reply is so exceedingly instructive to those interested in these things that I give it here verbatim. After mentioning that he makes no mystery of the parentage of his Narcissi, he says: "I began nearly twenty-five years ago to intercross the poeticus varieties, e.g., *Ornatus* × *Postarum*, both of these with *recurvus* and other late sorts, then the progeny back with the parents and with one another, constantly selecting small percentages out of an immense breadth of seedlings, until I got what I may call my own strain, and I keep on working with this, keeping large flowers, highly-coloured flowers, extra robust plants, and so forth for my 'breeding stud.'"

Twenty-five years is a large slice out of a man's life, and it is difficult for us to realise what an immense amount of patient study and care have been used during all those years to bring this strain to the pitch of perfection that Mr. Engleheart has now brought it, but those who doubt "if the game is worth the candle" have only to look at the stands in the poeticus classes at the principal Daffodil shows in the month of April to make up their minds unhesitatingly in the affirmative.

One of the first of the new poeticus to come into commerce was, I believe, *Almira*, sometimes known as *King Edward VII.* *Almira* is a fine flower of much substance, similar to *Ornatus*, but about double the size; it is not one of Mr. Engleheart's productions, having originated in a Dutch nursery; it is a grand and useful plant, and is now getting very cheap, but it is not considered so free or vigorous as some of those that have followed it. *Cassandra*, raised by Mr. Engleheart, which was first offered at about the same time, is a much finer thing, but I cannot quite agree with Messrs. Barr when they tell us that it is, "without doubt, the finest of all the poeticus." I prefer *Virgil* myself, although there are other flowers of more recent introduction which it has not yet been my good fortune to see. These appear to be improvements even on this fine flower; thus I hear, I do not know with what truth, of the stock of sixteen bulbs of *Acme*, which obtained an award last year, having changed hands for the substantial sum of £150.

Epic is a beautiful flower of great substance, and with a deep crimson rim to the cup. *Horace* I should describe as a very much improved *Postarum*, the improvement being in the perianth, which is much broader and of better shape than that old variety. The retail price of



NARCISSUS SALADIN (WHITE AJAX).

Horace last year was 21s., and it has been obtainable this season at 7s. 6d., and yet here is a list just to hand, from a very well-known firm of nurserymen and florists, in which it is priced at the preposterous figure of £5 5s., assuredly the way of killing, rather than popularising, the cultivation of such a useful flower. A not very well-known poeticus is *White Elephant*, a huge flower of grand form and substance when it comes good, but as I have proved from experience that almost half the flowers have a tendency to come rough and mis-shapen, it is not likely to be much grown, although a vase of carefully-selected blooms of it would make a most telling item in an exhibition stand. *Rhymer* I have not yet seen, although I have some bulbs of it planted, but it comes to me with the highest credentials, and was exhibited in good form at the Birmingham show last spring by Mrs. Berkeley in her stand of twelve seedlings, which obtained a gold medal.

One of the finest Poets I flowered last season was *Glory*. This beautiful flower and *Almira* are, I think, the only two I am mentioning which should not be placed to Mr. Engleheart's

credit, both of them being Dutch seedlings.

A favourite of mine is *Homer*. I have grown it for several years, and still consider that it maintains its place as one of the very best (see my note on it in your issue of July 8 last). The cup has a good deal of the character of *Ornatus*, but the crimson rim is much wider, and the perianth is altogether better; it is a fine flower of much merit.

Chaucer is an early flower, and although not large or imposing should, I think, prove useful for early hybridising, as it has a particularly good red cup. Perhaps I cannot do better than conclude this list with a brief description of *Virgil*, which I have previously mentioned. When at Dinton last spring I was fortunate in seeing this beautiful poeticus at its best, and I must say that it gave me the impression of being the most telling flower of its section that I had seen. It has a fine cup well suffused with orange-red, and a refined but substantial perianth, the segments of which are of unique and model shape. The raiser has told me more than once of its value as a pollen parent, and it is easy to believe this, as its splendid form, combined with the fine colouring of the cup, should undoubtedly ensure the production of first-class progeny.

In concluding these remarks, I would like to say a word or two in a general way to emphasise the great value of the poeticus to the hybridist. What would he do without it? All the most beautiful and striking of the decorative Daffodils owe their wealth of colour to poeticus blood. Those fine things *Gloria Mundi*, *Albatross*, *Beacon*, *Fire brand*, *Will Scarlett* (that almost startling flower), with many others, are indebted to it for their handsome and brilliantly toned cups, and we who are watching the process of the development of the Daffodil are well assured that we have still more beautiful things to look forward to and admire when the

hybrids from the newest and best of these poeticus begin to flower and to come into commerce.

F. HERBERT CHAPMAN.

Guldeford Lodge, Rye.

MR. CROSFIELD'S SEEDLING DAFFODILS.

AMONG the many who are emulating the grand example set by Mr. Engleheart in devoting himself towards the improvement of the *Narcissus*, few have achieved such an immediate success as Mr. Ernest Crosfield of Wrexham. This gentleman only made his *début* as a raiser of seedling *Narcissi* at the Midland Daffodil Society's exhibition last year, and already his seedlings have received four awards of merit, two from the Royal Horticultural Society, and two from the Midland Society. Mr. Crosfield's attention seems to have been especially attracted to the white trumpet Daffodils, and in this section he has been successful in

CONFERENCE OF FRUIT GROWERS.

IN connexion with the Royal Horticultural Society's great show of British-grown fruit, held on the 10th, 11th, and 12th inst., and fully reported in our last issue, a conference on fruit-growing was held under the united auspices of the National Fruit Growers' Federation and the Royal Horticultural Society. On Tuesday, from 2.30 p.m. to 5 p.m., Sir Trevor Lawrence, Bart., K.C.V.O., president of the Royal Horticultural Society, presided, and the subject was "Foreign Competition, and How to Meet It." This subject was sub-divided, "The Best Varieties to Grow" being introduced by Mr. George Bunyard and Mr. Joseph Cheal, and "Grading, Packing, &c." by Mr. James Harper (Dublin), Mr. Herbert Pantin, and Dr. Goethe (Darmstadt).

"FOREIGN COMPETITION, AND HOW TO MEET IT."

The president, Sir Trevor Lawrence, Bart., in opening the conference, referred at great length to the advantages that would accrue from the extension of fruit culture in this country, and in his remarks dwelt on the benefits to be derived from a larger consumption of fruit, stating that it was one of the most important matters regarding health. Referring to State or Government assistance, he pointed out that, while it might be desirable to receive some assistance, especially in regard to the matter of keeping down the various insect pests and fungoid diseases, it was of more importance that personal enterprise should be taken into account. As an instance of what one man could do he referred to Sir E. Jones, who was one of the pioneers of the Banana trade, which has since developed to such an enormous extent. He spoke of the difficulties of disposing of the first importations, and of the fact that coaster-mongers and their barrows were sent from London to Liverpool at the importer's expense, thus illustrating what could be done single-handed. Speaking of the difference in value of products, he mentioned that Muscat Grapes, which a few years ago could not be bought under from 10s. to 15s. per lb., may now be had at the same season for about 2s. 6d. With regard to the imports of such fruits as cannot be grown in this country, he referred to the enormous increase, especially in Bananas, which have now become a staple food in this country. While admitting that so much might be done by personal enterprise, he strongly recommended co-operation and the assistance of the Government in such matters as it is difficult for individuals to deal with.

Mr. George Bunyard, V.M.H., gave the first paper, which dealt chiefly with the enormous increase in the consumption of fruit and its advantages, the facilities for importations from the Canaries, South Africa, California, and other countries. Speaking of these importations, he suggested that there should be a small duty imposed. More especially he dwelt on the importation of fruit pulp, which brings down the price of English fruits for preserving purposes. The difficulties of small growers sending to market were referred to, and it was suggested that all should co-operate. On the Continent a much better understanding exists among small growers, all uniting together, and the rates for transit are therefore much reduced. The question of packing and grading was also dealt with, and the cheap

non-returnable boxes were suggested. Going into cultural details, the speaker suggested that fewer sorts should be grown, and that Pears on the Quince stock in suitable ground would give best results, and Apples on the Paradise, adding that in planting the union of the stock and scion should be kept below the ground. The importance of spraying at the right time was also referred to. In planting, it was recommended that various sorts should be mixed, so that cross-fertilisation might take place, and that some standards should be planted among dwarf or bush trees. The advantage of keeping the ground well worked and clean is, perhaps, the most important point in fruit culture. The necessity of thinning the fruit where there is an overcrop, and, finally, of avoiding planting too many varieties, was mentioned.

Mr. J. Cheal followed, giving further cultural remarks, and quoting varieties of dessert Apples. He recommended Beauty of Bath, Claygate Pearmain, Winter Pearmain, King of the Pippins, Duchess of Gloucester, Worcester Pearmain, and Court of Wick as good dessert sorts.

Of kitchen Apples he recommended Bismarck, Ecklinville, Golden Noble, Lord Derby, Lane's Prince Albert, Peasgood's Nonsuch, Bramley's Seedling, Stirling Castle, Jubilee, and Newtown Wonder. In the selection of trees half standards were recommended in preference to taller trees. Referring to culture, Mr. Cheal spoke of the advantages of keeping the ground clean, and said that in going through the orchards in Canada he found that the growers pay great attention to keeping the surface of the ground open, using the horse hoe frequently. Spraying is also done three or four times a year. No grass is allowed to grow, this being considered very detrimental.

Coming to Pears, Mr. Cheal strongly recommended the use of the Quince stock when planting in heavy soil. As to varieties, he thought most of Doyenné du Comice, Duchesse d'Angoulême, Durondeau, Louise Bonne of Jersey, and Marie Louise. Speaking of packing, the speaker testified to the advantage of using tissue paper in which to wrap each fruit, and the necessity of carefully grading the fruits. All of a uniform size should be packed together. This is most satisfactory from every point of view. They should be graded into three sizes—large, medium, and small. He also strongly advocated the use of non-returnable boxes. With regard to old orchards, it may be profitable in some instances to restore them, but generally it is best to grub them up. He made mention of the assistance given to growers by the Canadian Government, especially in the matter of destroying and preventing diseases and insect pests. He suggested that this is an item where our Government could render great assistance.

Mr. J. Harper (Dublin) dwelt specially on the subject of "Grading and Packing." He said that many growers grew large quantities and sent them to market without grading or regard to quality; they simply grew and marketed a certain bulk of fruit. With such keen competition, however, this system is bound to result in loss. Fewer sorts should be grown, and boxes of a standard size should be used. He further advocated the use of non-returnable packages. He pointed out the advantage of having clean, neat packages, which could be put in the windows of

the retailers without their having to transfer the fruits from one package to another. A good market Apple is Mr. Gladstone. James Grieve, Allington Pippin, Baumann's Red Reinette, Early Julian, Early Victoria, Early White Transparent, Tower of Glamis, Lane's Prince Albert, Wellington, Northern Greening, and Byford Wonder are also good sorts for market.

Gathering the fruits is not sufficiently attended to. No bruised fruits or windfalls should be included, only the best samples. Boxes to hold 5lb., 10lb., and 20lb. were suggested, and if barrels are used they should be made to hold 120lb. In speaking of packing smaller fruits, he said there was a great advantage in using small square punnets that may be packed together in a box. The packing cases for small fruits should be made to hold twelve, eighteen, or twenty-four 1lb. punnets. In the grading of Apples he suggested there should be four sizes, and the boxes should be marked A, B, C, D respectively. He exhibited samples of boxes of various sizes, which were neat, well made, and inexpensive. He found that many salesmen preferred to deal with foreign growers, because they always sent neat handy packages. He said that packages of fruit which were indifferently packed had made 1s. 6d. per package, and those better packed had made 1s. 9d. This showed the great importance of proper packing.

Mr. Herbert Pantin strongly advocated small packages and careful labelling. The one-layer system he was especially in favour of. All choice fruits should be wrapped in paper. He dwelt on the evil of putting the best fruits on the top of the package. Our English mode of packing is vastly inferior to that of other countries whence fruit is exported.

The Rev. G. H. Engleheart, referring to cultural details, said he had grubbed up an old orchard, and had replanted it with new clean trees, but the American blight from a neighbouring orchard attacked his trees, and though he persistently cleansed them, it was apparently of no use. He suggested that this was where the Government should take the matter up, and should insist upon old infested orchards being destroyed or thoroughly cleansed.

Mr. H. G. Greening said that in planting orchards the various sorts that flower at the same time should be taken into consideration, and those sorts which are naturally unfertile should be associated with those that have plenty of pollen. He found that many salesmen preferred to send their own packages to the growers, chiefly on account of avoiding the identification of the sender. As to the storage of Apples, for cold storage it is necessary that the fruit be ripe at the time of gathering, and it must be stored at once. There is considerable difference even with Apples left lying about even for a few days. As to varieties recommended earlier in the day, he said that in Yorkshire Ecklinville is a complete failure.

Mr. F. W. Moore, Glasnevin, mentioned the success in Ireland of experimental fruit plantations, which were assisted by the Agricultural Board. He considered Early Victoria, Lord Grosvenor, Warner's King, Ecklinville, Newtown Wonder, Bramley's Seedling, and Annie Elizabeth to be valuable.

Mr. J. Crook, Chard, said he found Ecklinville a failure, and Annie Elizabeth one of the best.

Sir Trevor Lawrence, in thanking the contributors of papers, made some humorous remarks regarding the fact that the growers of Ireland, who were supposed to be behind, appeared to be able now to give advice to Englishmen, and said they also received better treatment from the Government in the matters of horticulture than we do.

"FUNGOID AND INSECT PESTS, AND HOW TO MEET THEM."

This was the subject for discussion on Wednesday morning, the 11th inst., Mr. F. S. W. Cornwallis, president of the Royal Agricultural Society of England, presiding. Papers were read by Professor F. V. Theobald, M.A. (South-Eastern Agricultural College, Wye), Mr. F. Smith (Loddington, Maidstone), Mr. George Massee, F.L.S. (Kew), and Mr. Cecil Warburton, M.A. (Zoologist to the Royal Agricultural Society).

The chairman first acknowledged the assistance given by the Royal Horticultural Society to the National Fruit Growers' Federation in regard to this conference. The chairman referred to the importance of the subject under discussion, and said they must consider whether or no any legislation was possible in this direction. He thought the time was hardly ripe yet for legislation on the subject. The more the subject was discussed the better would it be for the demand for legislation when this should come to be made. Sheep-dipping was compulsory, and he did not see why the same principle should not be extended to fruit trees. However, it was no use asking for these powers if diseased stock were imported from abroad. This matter, too, should be remedied.

Professor Theobald said his remarks would take the form of stating the treatment for certain pests, as advocated from a knowledge of their life history. He would take only the most destructive pests, viz., mussel scale, American blight or woolly aphis, aphides, Apple sucker, winter moth, and codlin moth (the Black Currant mite and the Pear midge he would leave to be dealt with by Mr. Warburton). The mussel scale, said Professor Theobald, attacks the Apple, Pear, and bush fruits. Its presence is frequently undetected, as it is of similar appearance to the bark of the tree. When it was present in small numbers only no damage was done, but sometimes it would spread with great rapidity. There was always danger of a sudden increase. Professor Theobald suggested that these sudden increases of the mussel scale were due to an abatement of the work of parasites and of birds, as the blue tit, gold-crested wren, and nuthatch. Still, they must not rely upon parasites and insect-eating birds, they must assist Nature. There is no doubt that birds do devour some scale, but they are not an unmixed blessing, for they also distribute this and other insect pests. The treatment of mussel scale takes three forms: (1) spraying, (2) fumigating the young stock, (3) hand scrubbing. Fumigating for mussel scale is of no use; the fumes do not affect the eggs. It is only when they are in a young form that mussel scale can be satisfactorily attacked. Although we are obliged to rely upon paraffin emulsion at present, there is always a danger of damaging the trees and checking these more than the insect does.

The Apple sucker is widely distributed over Southern, Central, and Western Britain. It is destructive chiefly in Hereford, Worcester, and Kent. It has steadily increased during the last ten or twelve years. So far no satisfactory remedy has been used. There are certain points in this insect's life history which I would like to tell you. The Apple sucker lays eggs over a variable period in autumn, commencing in September and continuing until the middle of November. As the eggs are laid irregularly, so they hatch

out irregularly in the spring. Quite two weeks elapse before all are hatched. The larva makes its way rapidly to the buds, and is then protected from any wash that may be applied. So as to destroy them the wash would have to be used every day for a fortnight in early spring. But this would be impossible on a large scale. Again, the winged insect appears in July, and from then onwards feeds on the leaves and lays eggs. Then the insect should be attacked, for it is exposed, and not in spring. Spray with a strong soft soap wash in the autumn. This holds on to their wings and kills them, and thus prevents their laying eggs.

The woolly aphis (American blight).—There is one point in the history of this pest that, said Professor Theobald, should be brought to notice. This insect lives in two different ways. One lot of insects lives upon the trunk, boughs, and twigs of the tree, and the other upon the roots, and there is an active migration of these insects between root and branch, and *vice versa*. It is not, therefore, much use destroying the woolly aphis above ground only. He suggested that they should attack the roots at the same time as the branches. This is not done, and probably accounts for the failure to destroy the pest. The best remedy to apply to the ground is, in its simple form, sulphide of carbon.

Aphides, said Professor Theobald, may, for practical purposes, be treated as one. Active migration of these insects accounts for their often sudden disappearance and sudden appearance. The Apple and Plum aphides curl up the leaves so tightly that spraying is of little use then. When the buds of a Plum tree begin to burst, in the axil may be found a fat purplish aphis; this is known as the mother queen, which remains there for two or three weeks fully exposed. As soon as she produces young these go to the leaves. Thus, the time to attack this pest is in early spring, not when we see the damage done, but so as to destroy the parent. With the Apple aphis it is different. It is no use spraying this in spring or in summer. The only time to attack this is in autumn, for they can then be reached with the wash. Each of these insects will lay eggs and give rise to hundreds of thousands, therefore they must be attacked in autumn to prevent their laying eggs.

The winter moth, said the lecturer, can to a large extent be held in check by grease banding, as the females are wingless. The reason complaints have been made against the value of grease banding is because other caterpillars attack the trees also. One group, known as the Tortrix moths, are equally as destructive as the winter moth; the females are not wingless, and, therefore, cannot be caught by grease bands. If the tree is attacked by nothing but the winter moth, then grease banding is of the greatest value, but if there is a large proportion of Tortrix moths then it is doubtful if grease banding is worth while, for the others must be poisoned. Professor Theobald said that arsenate of lead is superior to Paris green, because it does not burn the foliage, is not so easily washed off, and has greater killing power. One often hears that these poisons do not kill, but this is because the worker does not know the life history of the pest. The time that the winter moth and the Tortrix moth come from the egg varies with the locality, but it is about the middle of March. Then they are delicate and exposed, while later they are protected by leaf and flower.

With reference to the codlin moth, Professor Theobald said there is only one thing we want to know, i.e., Is there more than one brood in this country? In North America and Canada there is only one brood, but in the Southern States there are as many as five broods. Here maggots are found in September, and it is thought, from the size of the maggots, that there are two broods in this country. All the first brood do not hatch out together, at least one month elapses between their first and last appearance. The codlin moth may be held in check by trapping the maggots

by tying bands of sacking or straw round the trunks 1 foot from the ground, collect and burn the maggots which are found there during the winter. But more is necessary, some will come from the Apples down the boughs; thus they move down and also up, for some fall from the tree or with the fruits. Arsenical spraying must be resorted to not later than ten days after the blossom has fallen. Professor Theobald then went on to ask if we were right in advising these remedies while millions of the pest are imported, for the barrels of Canadian, American, and Portuguese Apples contain large numbers of them. No other country allows infested fruit to be imported. Unless the maggots in the barrels of imported fruit are destroyed, it is waste of time and money to apply remedies.

Professor Theobald concluded his valuable paper with some remarks on insecticides. Mineral insecticides are always liable to do a certain amount of damage to the tree; there is always a certain liability to injurious effect which is beyond control. Although at present we must rely upon mineral insecticides, he hoped vegetable insecticides would in time be used instead. At present there are only three vegetable insecticides—Tobacco, Pyrethrum, and Hellebore. These may be used any strength on a tree without damaging the foliage. The application of vegetable as opposed to mineral washes is a matter for further experiment. At present Tobacco is too costly to be largely used.

Mr. F. Smith, Loddington, Maidstone, corroborated most of Professor Theobald's remarks.

Mr. George Massee, F.L.S., of the Kew Herbarium, next addressed the meeting on the subject of "Fungoid Pests." He emphasised the fact that cleanliness is the best safeguard against the spread of fungoid diseases. Without cleanliness all other efforts are unavailing. Fungus spores are carried about, but if each cultivator did his best to destroy them, good would be bound to result. He said the statement that fungus spores were capable of travelling thousands of miles had never been proved. Mr. Massee first dealt with the Apple and Pear scab. When the trees are leafless and cleared of fruit they are clean. The spores of this fungus are carried in the fruits, but they do not rot with the fruits as many appear to think. This fungus invariably first appears on the leaves; the leaves should be sprayed before it matures and reaches the fruits. Shrivelled Apples which hang on the trees throughout the winter are diseased; they should be gathered and burnt. Mr. Massee said there is nothing to choose between the various washes for spraying fungus-infested trees, except as regards their power of holding on. The great thing is to have a fungicide that will hold on the tree and kill the spore when it germinates. Mr. Massee next explained the shot-hole fungus, so familiar to Peach tree growers. The leaf grows away from the dead blotch formed by the fungus, and the latter falls to the ground, and the fungus spores germinate in the spring. Cleanliness is the thing to keep in view—i.e., gathering and burning diseased leaves and fruits. In the case of mildew, spraying is never more than preventive, because the fungus spore penetrates into the interior of the leaf. Then you cannot kill the fungus without killing the leaf. The fruiting portion of the fungus is what may be killed by spraying. The operator should always spray in the air and create a mist, and not at the object. In the laboratory it is possible to raise a mist by spraying, but not in a field. Spraying will never do much good in killing fungoid pests, although it is of great value in killing insects.

Many fungi do not follow a set rule, as, for instance, an Acorn does; this when planted we know will form a seedling plant, and eventually a large tree. For example, the Pear leaf blotch has two stages. In the first stage it appears on the Juniper, and in the second stage on the Pear tree. Both these hosts are necessary to the life of this fungus. Fungi will adapt themselves to

altered circumstances, for instance, a saprophyte, which lives on dead or decaying matter alone, may in the laboratory be induced to feed on Geraniums. He suggested that raisers of new "immune" varieties of Wheat, &c., should bear in mind the adaptability of fungi.

In referring to brown rot, the speaker said that if the bulk of the fruit attacked by brown rot could be collected and burnt, then this disease would be reduced to a minimum.

In answer to a question by Mr. George Bunyard, Mr. Massee said that he knew neither the cause of the disease called silver leaf, nor could he suggest a remedy. It is thought that sometimes a lack of food in the soil is responsible, for old Blackthorn hedges are often badly attacked, but young ones never. Mr. Massee said this disease could be produced by planting fruit trees close to a stable drain. Thus two directly opposite causes seemed to produce the same effect.

The white rot (root rot) was next referred to. It is a very common and often unsuspected danger. Its presence is often indicated by the foliage of young trees becoming yellow. If some of the roots are cleared, a white, mildew-like substance will be found on the roots beneath the bark. If this is so, expose more roots and throw boiling water on the soil about them. One cannot kill roots in this way, for the water is chilled before it reaches the vital part; then sprinkle a little lime over the roots. If the fungus has got a good hold toadstools will crop up; these should be burnt.

Mr. Cecil Warburton first made reference to the life-history of the Black Currant mite. This lays its eggs throughout the year. The mites live inside the buds of the Black Currant. They go on increasing until either the bud, not having suffered much harm, opens or the bud is killed and the mites leave. Those turned out of the buds for the first reason come to nothing, while those coming out of the buds which they have killed go into new buds. There is a gap in our knowledge of the life-history of this insect. What becomes of those mites which do not gain access into fresh buds? He had never found a mite living in the soil or living low down in the stems of the bushes. One of these things must happen, however, for after bushes have been cut down the mite reappears. He believed from experiments that they remained in the lower part of the bush, and did not go into the ground. It is impossible to exterminate the mite by direct treatment. In cases of severe attack it is little or no use trying anything. Any plants not diseased should be fostered and increased. Be quite sure you get stock free from mite, and then propagate from it. It needs very careful examination indeed to find out whether a bush is attacked or not. Do not be content with the nurseryman's declaration that the bushes he supplies you with are free, for his declaration, though given in perfect *bona fide*, may be incorrect. The Pear midge, said Mr. Warburton, was only found here twelve years ago. Now every year its presence is notified in new localities. It is gradually encroaching in many districts, and bids fair to become as dangerous a pest as the Black Currant mite. The fly appears in April and lays eggs. The maggots come out in summer and distribute themselves over the ground. They are at the grower's mercy until the flies emerge. The ground should be dressed with kainit, and the fruit should be stripped off.

Mr. W. P. Wright mentioned that Black Currant Boskoop Giant had been free from the mite for four years, although other varieties were attacked. He considered it the finest Black Currant.

Mr. George Bunyard said that the variety Black Dutch is practically free from the mite. It is, however, not a very good cropper, and has almost gone out of cultivation. If trees are well cultivated and vigorous they are usually free. To get rid of the Pear midge, he advised taking off and burning the lower leaves and

applying kainit in the autumn. Remove the surface soil and burn it as for the Gooseberry caterpillar, and spray in the spring. For the mussel scale he used common oil of any kind, and for American blight methylated spirit; paraffin emulsion he found injurious.

Mr. N. R. Page, a market grower from Clacton, said that when his trees were attacked by the Pear midge he took off the fruits and dressed with kainit, sulphate of iron, bone-meal, and superphosphate. The trees have since been free. He used twice as much of kainit as of the other substances. Mr. Page recommended spraying in July with carbolic soft soap for the Black Currant mite.

Mr. Spencer Pickering, F.R.S., said he had found no advantage in using mixed alkali washes for mussel scale. Whether a wash reaches the eggs depends upon how close the scale sticks to the tree and other adventitious circumstances. He referred to the use of vegetable instead of mineral poisons. So far the results obtained from the former were satisfactory. Mr. Spencer Pickering asked Mr. Massee if investigations might not be made by inoculation to modify the effects of injurious fungi. Mr. Massee thought such might be carried out.

"LAND TENURE AND RATING DIFFICULTIES."

The chairman on Wednesday afternoon, when the above subject was discussed, was Mr. Arthur S. T. Griffith-Boscawen, M.P. In his opening remarks the chairman said: I believe that a further great extension of the fruit industry is possible; the public taste for fruit is a growing one. If some of the present difficulties were removed, a good deal of the fruit that is now imported might be grown at home. They must, however, be able to obtain the necessary land, and take care that the occupiers of such land are not unfairly treated with regard to rating. The subject of land tenure is an exceedingly difficult one. Land upon which fruit is grown, especially where there has been a large expenditure of capital, is different to farm land; on the latter improvements are made by the landlord. Fruit trees add greatly to the value of the land, and confer lasting benefits upon it. Part of the value of land under fruit is made by the tenant. The difficulty is to adjust the matter between landlord and tenant so as to protect the latter and still be fair to the landlord so that he will let the land. Ownership is the stumbling block; if it were not for that the present difficulties would be unknown. Therefore the Government Committee recommended that small holdings should be encouraged. This would be most desirable. The chairman instanced a farm at Wisbech where the land had been purchased by the grower. Tenancy should be fair to both parties. The law in land tenure is very obscure. It is alleged that owing to defective valuation of fruit plantations and other causes the law as it stands has a deterrent effect on landowners, who may have to find large sums to compensate the tenant when the lease expires. Therefore landowners have been unwilling to let their land for the purpose of fruit culture. The Government Committee felt that the real difficulty was the question of valuation. It is necessary to see that the valuation is fair. The committee suggested the appointment of a committee of valuers expert in fruit culture to determine upon the best methods of valuing orchards and fruit plantations. The committee also suggested that the State should advance money to landlords for the purpose of compensating outgoing tenants. It was also recommended that the Market Gardeners' Compensation Act should be made retrospective. Speaking of rating difficulties, the chairman said that the fruit plantation was not fairly treated. An ordinary farmer pays rates upon one-third of the rent. The fruit planter pays upon the whole gross profits. This ought to be abolished

in the case of market gardens, as has been done in the case of Hop fields. Directly fruit trees are planted on land, the assessment is immediately increased, yet there cannot possibly be any increase in income for some years. To put up the assessment at once is to deter men from planting fruit trees. The Government committee suggested that in the case of small fruits the assessment should be raised five years after planting, in the case of mixed plantations seven years, and in the case of orchards twelve years after planting. Some such plan would remedy the grievance.

The present law of rating glass houses is very unfair. It is absurd that glass houses, which depreciate so very quickly, should be allowed just the same reduction for repairs as dwelling-houses, namely, one-sixth. An extra one-sixth, or something more, should be allowed in rating glass houses. In local taxation glass houses are treated as buildings. I consider that the Agricultural Ratings Act should apply to glass houses. Upon the solution of these various questions will depend the future of the fruit industry.

Mr. Cecil Hooper, F.S.I., and Mr. S. H. Cowper Coles, F.S.I., then read papers bearing on the questions raised by the chairman. Mr. Hooper said that fruit growers need every facility to make their produce profitable. The great difficulty is in arranging matters satisfactorily between landlord and tenant. He agreed with the recommendations of the Government Committee on Fruit Culture that the various Agricultural Holdings Acts should be consolidated, that the Market Gardeners' Compensation Act be retrospective, and that where a tenant gives notice to quit he shall not be entitled to receive compensation unless he presents to the landlord a successor willing to take over the holding at the same rent. That in the event of his so doing, and the landlord accepting his nominee, the compensation be paid directly by the new tenant to the old tenant, but that the landlord have the right to refuse to accept the outgoing's nominee, in which case he must pay compensation to the outgoing under the provisions of the existing law. Mr. Hooper reckoned that the farmer is much more highly rated than the merchant, tradesman, or professional man. While the farmer pays on 150 per cent. of his income, the tradesman pays on 25 per cent., and the professional man on 12 per cent. only. Mr. Hooper touched on other points, many of which had been referred to by the chairman.

Mr. Cooper Coles thought the occupier of the land should pay the rates. Whatever the rates are it will be a bad day when the payment is divided between the landlord and the tenant. Mr. Coles then went on to discuss the propositions made by the Government Committee, which have already been mentioned.

Mr. Langridge agreed that the Agricultural Holdings Acts should be consolidated. He thought the landlord should pay compensation over a period of years. The landlord ought to settle with the outgoing tenant. He had never found an incoming tenant willing to pay compensation. At least 50 per cent. ought to be allowed off the rating of glass houses.

Mr. Matthews (secretary of the Associated Chamber of Agriculture) suggested that a committee of expert valuers should be appointed by the Royal Horticultural Society, the National Fruit Growers' Federation and Surveyors' Institute instead of by the Government.

Mr. Vinson spoke highly of the Market Gardeners' Compensation Act (introduced by Colonel Long, M.P.), for before it was passed every fruit tree planted became the property of the landlord, who at the end of the lease became owner of the fruit trees without paying any compensation.

Mr. Lobjy testified to the benefits of the Market Gardeners' Compensation Act, but to-day landlords were reluctant to let their land for fruit culture. The difficulty is how can the benefits of the Act be extended? Landlords are few and

powerful, and much land is held by men who do not care whether it is let or not. Many hold land purely for pleasure. How to devise some means by which it would not pay the owner to hold land for pleasure alone is the question. To force the land upon the market is the difficulty. There are few bad landlords except those who have a lawyer at their elbows to put them up to tricks. Lawyers are the worst landlords. I think a basis of compensation for fruit tree plantation can be found. It is laughable to see the varying values placed by different men upon the same fruit trees. At present the landlords run a risk of paying a large compensation. A committee should be formed to agree upon the best remedies for these various difficulties, and then all possible should be done to make them law. I do not see why anyone should object to pay upon what he earns, but why should he pay upon a different basis to that of his neighbour? The line of demarcation between the farmer and the market gardener should be broken down.

Several other speakers dwelt upon the same questions.

"RAILWAY GRIEVANCES."

On Thursday morning Sir Albert Rollit, M.P., presided, and the subject of "Railway Grievances" was discussed by Mr. W. W. Berry (Faversham), Mr. John Idiens (Evesham), Mr. George Munro (president of the National Federation of Trades Association), and Mr. T. F. Goddard.

The Chairman pointed out that there was much room for improvement in the railway arrangements. The question of defining where the railway companies' liabilities came in was a difficult point to settle. The Fruit Growers' Federation has done something to help growers, but more remains to be done, and the conditions have so materially changed since the Act of 1888 that it now requires considerable modification. Conferences with railway companies' officials were of little use.

Mr. W. W. Berry, Faversham, referring to the railway rates, severely criticised the various railway companies, and complained that the rates for flour, as an example, were considerably lower than those for fruit. The unsatisfactory state existing in regard to the definition of "owners' risk rate" should be more clearly defined, and the necessity for further legislation on this point was insisted upon. The speaker said that if the suggestion of providing special waggons for the fruit trade were carried out it would necessitate higher charges being made rather than lower ones. He thought that Parliamentary legislation should compel the companies to give better terms to such an important industry as fruit-growing.

Mr. John Idiens, Evesham, spoke more favourably of the companies, and contended that they tried to meet the growers in a fair way, but his contentions were severely criticised, and it was suggested by Mr. Bettison that he had some interest in supporting the railway companies. This, however, was refuted. Mr. Idiens said he spoke from his own experience of what the railway companies are willing to do, and the fact that some growers get into trouble does not prove that it is always the companies' fault.

Mr. George Munro dwelt on the necessity for reclassification, giving one instance—that of the charges for Tomatoes; the rates for these if sent in baskets with lids being 51s. 8d. per ton, as compared with those sent without lids, the rate for which is 100s., or nearly double. Mr. Munro explained that it was more convenient to load baskets without lids, as they could be packed one on the other better, and there was no greater risk incurred in one way than the other. The

fact that things have changed so much during the last decade demands that there should be a readjustment of all rates for fruits, &c. The National Federation of Trades Association, of which Mr. Munro is president, has done some good work, but more remains to be done. Referring to the trade with the Channel Islands, the South Western Railway and the Great Western Railway were at one time rivals, but eventually worked together, with the result that no concessions could be obtained. The growers found that the tax on loading was so heavy that it became necessary to start a company for their own trade, a measure which has worked well and has been a great saving to the growers. It was contended by the speaker that if the various railway companies would give better terms to growers of fruit under glass the trade would be considerably increased, and in the long run the companies would benefit as much as the growers. While recognising that the companies were not altogether at fault, the question of readjustment of rates and a better delivery of goods were advocated, and this would be of mutual advantage, as it would considerably increase a most valuable industry.

Mr. J. F. Goddard, referring to the legal aspect, strongly urged combination of growers. They should seek Parliamentary aid to get more definite laws to deal with the question of railway companies' liability. The combination of all concerned and persistent agitation are the only methods by which to get grievances redressed.

Mr. Boscawen said it was true that growers might have some grievances, yet he suggested that no hostile demonstration should be made. He gave some figures showing that rates were not unduly high, the eighth of a penny being the rate per pound for some long-distance charges on fruit. He complained that the rates were variable, and that there was no definite principle in classification. The Act of 1888 needed remodelling to meet more modern requirements. The question of prompt delivery was made a special point. Reference was also made to the fact that while other trades availed themselves of the conference which was instituted in 1888 only twenty cases from fruit growers had been before that Committee. It was suggested that a Government official should be appointed to see that rates, &c., were properly adjusted.

Mr. Poupart referred to the losses in transit, and stated that no claim could be sustained if part of a consignment was lost.

In closing the morning's work the chairman suggested that foreign fruits were put before the public in better condition than English. Mentioning Denmark as an example of good organisation, he remarked that if in our schools modern railway arrangements were considered instead of devoting the time to old Roman roads, it would be of greater advantage to the rising generation.

PROPOSED EXPERIMENTAL FRUIT FARM.

"Distribution of information in connexion with the proposed establishment of an experimental fruit farm by the Board of Agriculture, and its possible extension for demonstration of commercial fruit growing."

This was the subject for discussion on Thursday afternoon, Colonel Long, M.P. (president of the National Fruit Growers' Federation), in the chair. The chief speakers were Mr. Spencer Pickering, F.R.S. (director of the Woburn Experimental Farm), Mr. W. A. Mackinnon (late of the Canadian Government Fruit Department), and Mr. H. F. Getting (Rose).

In his opening remarks the chairman suggested the desirability of a committee or bureau of information being formed, with experts to give

instruction on all matters relating to fruit culture, especially as regards the sorts suitable for various soils, the best spraying compounds, artificial fertilisation, &c. He also suggested that the success of foreign competition was due to better arrangements and more systematic organisation.

Mr. Spencer Pickering, F.R.S., gave the first paper. He referred especially to the subject of planting, and gave illustrations of the results of various experiments. Trees which had been planted deep in the soil made roots from the stems above the original roots, and did better than those planted in the ordinary way. Trees that had been made very firm or rammed down when planted made better roots and more growth than those planted in the ordinary way. The difference between trees growing on ground that was kept clean and well worked on the surface, and those growing with grass on the surface, was well illustrated; the result proved the grass to be very detrimental. Mr. Pickering stated, in regard to the use of different manures, that trees had not shown decided results. He suggested that general experiments should be carried on in different localities to obtain practical results, and that specialists should be appointed for each branch. To make experiments of any real value they should be carried out on a large scale. In addition to the experiments carried out under the direction of experts, all growers should make experiments with the assistance of experts, who should travel from place to place.

Mr. W. A. Mackinnon gave interesting details of the manner in which fruit culture is carried on in Canada, and the assistance given by the Government. All growers co-operate and assist each other. The Government have planted numerous trial plots on different estates, and these are inspected periodically. All information can be obtained free of cost, no charge being made even for postage. In referring to cultural matters, he spoke of the dust spraying, suggesting that it was more efficacious than liquid spraying. The testing of seedling varieties is well carried out; the hardness of each sort is being specially considered. The selection of the best form of any variety is considered of as great as or greater importance than the raising of new sorts. Reports are frequently issued and sent post free to those interested. The growing of a large number of varieties is discouraged; grow rather a selection of sorts which ripen in succession. The cross-breeding of late varieties is paid special attention to.

Mr. H. F. Getting (Rose), an experimental grower, made reference to the inefficiency of our English methods of teaching. Lecturers often give varieties which are unsuitable, and also recommend manures which do not suit the soil. He referred to the United States, where they have sixty-three experimental stations, and contrasted the work done there with our own imperfect systems.

Professor Allwood referred to the want of better and more practical experiments, and suggested that this work should be taken up by the Government.

Mr. Bunyard rather severely criticised some of the statements made by Mr. Pickering, especially in regard to deep planting.

The question of warding off frost was referred to by a speaker whose name did not transpire. He spoke of using lamps, as is done in Canada, and from his own use of these found them of great benefit. He attributed the loss of crops to cold winds in most instances rather than actual frost.

At the conclusion of the debate Colonel Long paid a tribute to nurserymen for the great assistance they give to those planting orchards.

raising flowers of great beauty and refinement. If skill and energy count for anything it should not be long before he is able to show an advance in the other sections, as he has thousands of seedlings to plant out, all of which have been raised from careful cross-fertilisation carried out by his own hands. Of the white trumpet varieties exhibited by Mr. Crosfield, most were derived from those two standard varieties, *Mme. de Graaff* and *Weardale Perfection*, and in nearly every case the seedlings quite surpass either parent in beauty and finish of form.

Saladin, the variety figured, is one of the most charming of the set; a flower of exquisite waxy texture and perfect shape. In colour it is a trifle paler than *Weardale Perfection*, and the segments are almost those of *Mme. de Graaff*. The flower is well-proportioned, and the width across the mouth of the trumpet is $1\frac{1}{2}$ inches. Another flower of the same origin is

Maid Marion, but in this the trumpet is considerably shorter, and much more widely expanded, being $1\frac{1}{2}$ inches across, and most exquisitely frilled. Both these varieties received awards of merit at Birmingham in 1904.

Although Mr. Crosfield was prevented by the vagaries of the season from exhibiting at Birmingham, he was in a great measure compensated by winning the silver cup offered by Messrs. Barr and Sons at the Royal Horticultural Society's meeting on April 25 last. This exhibit included a number of seedlings of rare beauty, two of which secured unanimous awards of merit. Of the two, perhaps the better was

Countess of Stumford, a white Ajax of remarkable beauty. The seed parent was *Mme. de Graaff*, and it is to this exquisite sort that we owe the rapid development which has taken place amongst the white trumpet Daffodils during recent years. The flower under notice is of palest lemon white throughout, and possesses a more even perianth than its parent, while the elegant trumpet is wider, but not so notched or recurved. It is safe to say that no flower won more admiration last season than this exquisite variety.

Banzai, the other variety which received an award of merit, is a noble flower of the *Weardale Perfection* type, though it is of larger size and opens paler than that variety. Much of the *Weardale* character may be seen in the perianth, but the bold wide trumpet is beautifully frilled, and has an elegant recurving rim of very distinct appearance. Of the other seedlings shown in this exhibit

Indamora, a chaste sulphur white Ajax, similar in size to *Mme. de Graaff*, and of very strong growth, is a flower of solid merit. The segments closely approach those of *Mme. de Graaff*, while the long, straight trumpet is only very slightly revolute. This variety is whiter than *Mme. de Graaff* and of quicker increase.

Herd is one of the finest bicolors yet exhibited. This has an Empress perianth and a very bright lemon yellow trumpet with a prettily recurved rim. The flower is of large size and extremely well made. A seedling from *Weardale Perfection*.

These are but a tithe of the stately and exquisite flowers with which Mr. Crosfield has delighted us, and one can but hope that his patience and energy may be still further

rewarded, and that each year may yield him more and more encouragement.

Worcestershire.

A. R. G.

BORDERS OF SPRING FLOWERS.

THERE are many places where it is not easy, or not perhaps obviously easy, to arrange for a good display of spring flowers. This is generally the case where they have no place of their own; where they may only occupy their positions for a part of the year, and must then make room for summer flowers. This is scarcely ever satisfactory, for it must either restrict the choice of plants within narrow limits, or demand the sacrifice of good plants that ought to stand longer in their place.



A FLOWERY PATH IN SPRING AT MUNSTEAD WOOD.

In such conditions, none of the permanent perennials that bloom in spring can be used, and only a limited number of bulbous-rooted plants.

True comfort in spring gardening can only be obtained where a space can be wholly devoted to plants that bloom in April and May. In many pleasure grounds there are by-places that are not within the main summer garden scheme, where the early flowering plants might find a home. Such a place is the one illustrated. It is just beyond

the boundaries of the more dressed pleasure garden. To the south is a high wall, continuing as a Yew hedge, through which a path and a hunting-gate lead into the garden nearer the house. The high wall is on the spectator's right, though it does not come within the picture. A Yew hedge, not yet grown to its full height, also bounds the garden at the end of the path, where this passes through it after taking a swan-neck bend.

Many of the plants in the border are permanent; of these the principal are: Tree Pæonies, in one or two of the most beautiful colourings of pale and full pink; the earliest of the herbaceous Pæonies, including the handsome *P. wittmanniana*; *Veratrum*, *Myrrhis*, and Solomon's Seal for handsome foliage; *Heuchera*, *Mertensia*, *Uvularia*, *Camassia*, *Dentaria*, *Adonis*, *Corydalis*, several kinds of *Anemone*, including the gorgeous *fulgens*, double *Arabis*, *Iberis*, *Aubrietia*, and *Alyssum*. Those that stand from two to three years are *Tiarella*, *Narcissus*, early Irises, dwarf Phloxes, and the dwarf alpine Wall-flowers.

Then, yearly replanted, are long drifts of Primroses, Tulips, Wallflowers, *Myosotis*, and stately groups of Crown Imperials.

The whole is carefully arranged for colour. To the right, as in the picture, the colouring is of white with palest yellow, and purple of *Aubrietia*, Wallflower, and late Tulip in succession. The yellows deepen to the middle of the bower's length, and then tone into orange and scarlet. This strong colouring is further enriched by an underplanting of dark reddish-leaved *Heuchera Richardsoni* and a backing of brown Wall-flower.

To the left there is again white and pale yellow, and purple of *Aubrietia*. But here the *Aubrietia* is led away through the varieties of pinkish-lilac colouring, as of the beautiful Dutch variety "*Moorheimi*," to the true pinks and whites of Tulips. These lead to double white *Arabis* with *Myosotis*, tall white Tulips, and arching sprays of *Dielytra*; then again onward to the scarlet of *Anemone fulgens*, *Tulipa gesneriana*, and the same filling as on the other side of red-leaved *Heuchera* and brown Wall-flower.

The borders, thus carefully considered for colour, and filled with the best plants of the season, are really of pictorial value during the months of April and May.

The wall to the right is flowery with Morello Cherry and garlands of *Clematis montana*. The same good early *Clematis* is planted at the foot of some Cob Nuts that stand at nearly even distances at the back of the left-hand border. They are being trained to go about 7 feet up the Nuts, and then to form garlands from one to the next, swinging down to meet the great pink flowers of some of the loveliest of the Tree Pæonies. G. J.

GARDENING FOR BEGINNERS.

SIMPLE HINTS.

AMERICAN AND ENGLISH BLACKBERRIES.—The English Blackberry is a delicious and wholesome fruit when the plants are grown in good soil and the fruit is allowed to hang some time after it is ripe; but it is not often that it can be gathered under such conditions, hence one reason why the cultivation of Blackberries in gardens is recommended. Another reason is that much ground now wasted may be profitably planted with this fruit. The American varieties are somewhat larger than most of the English ones and of finer flavour. They are vigorous in growth and extremely free-bearing. When well grown they are not only excellent for cooking and preserving, in contrast to the somewhat "pippy" products so often resulting from the fruit bought in the shops, or gathered from hedges not far enough away from the haunts of men, or rather, of women and children, but they are really excellent for dessert, little inferior in flavour to the best Raspberries. A want of flavour is compensated for by greater freshness.

Of American Blackberries proper the finest one to grow is Wilson Junior, a large-fruited variety, which has been given an award of merit by the Royal Horticultural Society. It forms a welcome dessert when fully ripe and freshly gathered, and makes one of the best preserves. Other fine American varieties are Early King and Lawton, both producing fine fruit, but Wilson Junior is recommended as the variety to grow where only one sort is chosen. Though American Blackberries have been described as better than English, there is one English species which is probably equal to any, and that is the Cut, or Parsley-leaved Bramble (*Rubus laciniatus*); it is a strong grower, and very prolific, the fruit being of rich flavour and excellent for all purposes. It may be grown as a climber, and thus combine both ornament and profit, its foliage and rose-coloured leaves forming a pretty picture.

The Blackberry will grow almost anywhere, but is the greatest success on a deep rich moist soil, especially on one possessing plenty of lime. It is then that the fruit grows in clusters of twenty or thirty in a cluster. The best quality of fruit is probably obtained by growing the plants on the same system as Raspberry canes, i.e., planted 2 feet to 3 feet apart in the rows, with 5 feet between the rows. All the old wood should be cut out in the autumn, and the young wood shortened to about 5 feet, and a liberal mulching of manure applied every year, with the addition of some basic slag in the autumn or superphosphate in the spring to make up for the poorness of the farmyard manure in phosphates. To support the canes there should be stout stakes or posts, 5 feet high, at intervals in the rows of 10 feet to 15 feet, and a wire stretched along from stake to stake at the top, and another wire about half-way down, so that the young growth can be well tied in early in the summer. It is then easy to walk between the rows and gather the fruit without the clothes being caught on the thorns.

Blackberry Hedges.—If space cannot be spared to grow them in this way, or if it is considered that they are not worth good positions in the garden, another excellent natural way to grow

them is in the form of a hedge, either as a boundary or otherwise. If there is a ditch, a row on each side of it near the top, or even a little way down the bank, will make an impenetrable hedge after three or four years' growth, some support being put up on each side of the ditch to help them until they have well grown together. This may be a rough wooden fence—simply some stakes or posts with a few laths nailed to them, or a couple of wires stretched along. Of course a ditch is not necessary, though the moisture and the alluvial soil often found in old ditches is congenial. If a hedge is wanted on the level, plant a row on either side of a rough fence or support of some kind, or even only on one side, and in about four years at the outside the result will be a veritable zereba. This would be a much more profitable occupation of the ground than the ordinary clipped hedge of Privet, Holly, or Quick, and at least as beautiful, as the Blackberry is pretty when in bloom, and not less

As to Planting and After Management.—The Blackberry is a deep as well as a surface rooter, and a gross feeder, and, unlike many fruits, there is no fear of inducing a rank growth at the expense of productiveness. The ground for its reception should, where possible, be deeply dug and manured, and a dressing of basic slag at the rate of 10lb. to 15lb. to the 40 square yards incorporated with the soil, principally with the lower spit. If it be very poor in lime, a dressing of this should be given at the same time, and, if the soil is a light one, cow manure should be used if possible, as this is more retentive of the moisture in which the Blackberry delights. When the canes are planted in the autumn or winter—November is the best month to put in all trees and bushes—they should be at once shortened to within 1 foot or 18 inches of the ground, so that the shortened tops may correspond to the diminished quantity of root fibre and a much stronger growth the following spring be induced thereby. As it is the young wood which bears the finest fruit, the object of the cultivator must be to obtain strong canes from the root every year. After the first summer's growth they should be shortened to half their length, when they will fruit a little the following summer, and at the same time make strong vigorous young canes, which will bear fully the next season. On arches, the old canes should be cut out right down to the ground every autumn, as on the Raspberry system, and the young canes tied in their full length, unless they overlap much overhead. Those grown as hedges may be left to themselves after the first summer's growth has been shortened, except to train them a little until the hedge gets well tangled together. After a few years it would be well to renovate the hedge by removing all the old and worn out wood, when the growth will be of increased vigour and the fruit of correspondingly increased size.



1. The fly. 2. The insect. 3. Result of American blight.

so when the leaves take on their gorgeous colouring in October and November.

A Blackberry Walk.—Another way to grow Blackberries is on arches, and if the arches are near enough together they will form a Blackberry walk. To accomplish this latter object the arches should be about 10 feet apart, and 7 feet to 8 feet high, with three or four wires running along each side connecting them together, so that the brambles can be trained up each side to meet overhead. With the arches 10 feet apart, if a cane is planted against each post, and another put midway between each two posts, the growth will be quite thick enough for profitable bearing in about three years, as, if too dense a screen is formed, sun and air are kept out too much from the interior, and lessened production with inferior quality of fruit is the result, while the beauty of the arcade is certainly not improved. Out-of-the-way parts of the garden might be used for this purpose, as the Blackberry will grow in almost any shady place, though it will not bear so abundantly as it will when in the free air and sunshine.

American Blight.—Few pests to which Apple trees fall a prey are more troublesome than American blight, and when once the trees are badly attacked it is a difficult matter to get them clean again. Fruit growers, therefore, should try and keep their trees free from American blight if they have not already been attacked. Immediately the smallest sign of this pest is found means should be taken to destroy it, otherwise it will quickly spread over the whole tree, and eventually throughout the orchard. When only a few patches of American blight are to be seen they may be destroyed by thoroughly wetting them with a small brush dipped in methylated spirit. If, however, the blight has spread more or less all over the tree, then stronger measures must be adopted. The rough bark of those parts affected must be scraped off, first placing cloths so that after it has been scraped off it may be collected and burnt. It is a good plan first to wet the bark with soapuds, so that none of it when scraped off may blow away. The affected parts should then be scrubbed with a stiff brush dipped in a solution of paraffin emulsion, taking particular care that the mixture penetrates into any crevice in which the pests may have taken shelter. Quassia extract and tobacco water, mixed with soft soap, are also good for this purpose. Perhaps the most effective remedy is a caustic wash, which should be applied

in the winter. This is made as follows: Dissolve 1lb. of caustic soda in 1 gallon of water, then add 3lb. of carbonate of potash, stir until all is dissolved, and add 9 gallons of water; last of all, add 10 oz. of soft soap which has been dissolved in a little boiling water, mix thoroughly, and the solution is ready for use. This mixture is often used without the soft soap, but the soap makes it adhere much better. This mixture is very caustic, and should not be allowed to get upon the skin or clothes. The American blight aphides sometimes attack the roots of the Apple trees. When this is the case, the roots near the surface should be exposed and painted with one of the above-mentioned insecticides. The white woolly substance with which the bodies of these insects are partly covered is secreted by them.

Greenhouse Fires.—Where there is a greenhouse some means of heating it to exclude frost in winter is essential. Gas or oil lamps are temporary and poor means for warming a greenhouse, often failing, and the foul gases emitted are most harmful to the plants. The best provision is found in a small boiler fixed in the wall of the greenhouse at one end, the furnace-door by which it is fed being outside, and protected with a small corrugated iron sheet to ward off wind and rain from the fuel. If to this boiler be attached inside sufficient length of 4-inch piping, it is easy then to get up a nice warmth, and with proper attention to maintain it through the night, especially in hard weather. All these boilers are best fed with fuel of one-third small coal, the rest being finely broken coke and house cinders. Always loosen the mass of fire perhaps once in two hours, adding fresh fuel, especially before going to bed, when the fire should be well banked up.

Hedges of Flowering Shrubs.—It often happens that some kind of hedge is wanted in a garden, either as a screen to hide vegetable ground, or as a wind break or some kind of partition. When this is the case, it is a good plan to plant hardy flowering shrubs about 4 feet apart, and so to train them that they grow into a compact hedge, and yet have enough lateral play to allow them to flower. Such a hedge is not only ornamental, but it yields endless material for cutting. It should be allowed to grow quite 4 feet thick, and is best formed with a backbone of stiff woody shrubs, such as Guelder Roses, Ribes, and Lilac, while between the stiffer shrubs might be some that are weaker, such as K. rria, Rhodotypus, and Leycesteria. Plants of rank, rambling growth, such as the free Roses or double-flowered Brambles, Aristolochia, Wistaria, Virginian Creeper, and the rambling Honeysuckles, are not in place in such a hedge; they are more suitable for rough hedge banks, walls, or for arbour and pergola; the flower hedge wants true shrubs. The bush Honeysuckles, such as *Lonicera fragrantissima* and *L. tatarica*, are just right, or any woody, twiggy bushes either of moderate growth, or such as are amenable to pruning or thinning, such as *Deutzia* and *Snowberry*, shrubs that so often get overgrown in a shrubbery. In the hedge these would do well, as they could be easily watched and thinned, also any of the many true shrubs that flower all the better for reasonable pruning. Any one would be surprised to see what a quantity of useful flowers such a hedge will yield, while if there is another of foliage for winter use it will be invaluable to the indoor decorator, using such shrubs as the Scotch Golden Holly, Golden Euonymus, Golden Privet, the variegated *Eurva latifolia*, yellow variegated *Bux*, *Cassia fulvida*, and Golden Tree Ivy, all shrubs of the utmost value for winter cutting. Other flower hedges are delightful possessions. Hedges of China Rose, of Sweet Briar, of old garden Roses, or of climbing and rambling Roses trained down, of Honeysuckle, of Jasmine—some of these are occasionally seen; but a good selection of true shrub hedges is rarely, if ever, made. Any of

the shrubs recommended for the mixed flowering hedge could, of course, be used alone, and excellent would it be to have a hedge of Guelder Rose, or of flowering Currant or Japan Quince, and how much more interesting than the plain hedge of Quick or Privet or Holly. Both sides of the hedge should be easily accessible; not necessarily by a hard path, but by a space just wide enough to go along comfortably. An additional advantage well worth considering would be that, supposing the direction of the hedge was east and west, the south side would flower in advance of the north, and so prolong the supply of bloom.

Lavender Bushes Dying Suddenly.—Lavender bushes occasionally die suddenly and without any apparent reason, but Rosemary and several of the *Cistus* family show this undeniable trait more frequently. We have to remember that these are plants of the extreme south of Europe and Mediterranean region generally, rejoicing in a stony soil and fierce sun-heat. It is a wonder that they will accommodate themselves so kindly as they generally do to the varying conditions of English gardens. This dying off now and then seems like an occasional protest on their part, as if to remind us that, though they have been with us so long that we have come to look upon them as English plants, they are true southerners at heart, and cannot be absolutely acclimatised. If Lavender is wanted as a dwarf grey hedge it should be pruned in the spring; but if flowers are wanted, in the autumn.

GARDENING OF THE WEEK.

FLOWER GARDEN.

AS beds and borders of summer-flowering and foliage plants are cleared it is necessary in many cases to plant bulbs and other plants for a spring display. As the summer crop is generally an exhaustive one and the demand of the spring-flowering occupants is certain to be heavy, thorough preparation and enriching of the soil before the autumn planting is carried out is imperative. Where necessary take out some of the worn and plant-sick soil, replacing it with fresh turfy loam if available, and if the fresh-cut turves are buried 1 foot or so deep, grass side downwards, it will not only benefit the spring-flowering plants considerably, but will be nicely decayed and mellowed, and turn up in perfect order for the planting of summer bedders in May. Good manure, either farmyard or artificial, must be applied liberally. On beds thus prepared plant without delay.

BULBS should be put in first, and in the case of such as Hyacinths and Tulips they should be planted sufficiently deep to admit of the surface being carpeted with the various spring-flowering and foliage plants generally used for the purpose without injuring the bulbs in the operation. The beauty of such as these is much enhanced if they grow out of a carpet of greenery or a mass of harmonising colour. Plant thickly, avoiding indiscriminate mixing of colours where possible, but in preference plant masses of decided colours for distant effect and the softer shades in closer proximity to frequented parts. Where a winter effect is particularly desired

DWARF CONIFERS in variety and suitable sizes, in conjunction with other evergreens, should be almost exclusively employed, for no plants for this purpose can surpass a good selection of these. Variegated and tinted plants are of great value for this work, for they help to lighten and relieve the more sombre greens employed. If suggestions thrown out in an earlier calendar respecting these plants have been carried out, they should be in good order for planting.

THE FAST-FALLING LEAVES provide constant work in brushing up drives, walks, and lawns; but in view of, and near the residence especially, all leaves and litter must be brushed up and collected daily, and in less conspicuous parts clear up as often as labour will admit, for any place soon presents a neglected appearance if left even a short time unattended.

WALKS, especially those skirting beds or borders, if weedy should have a good weed killer applied to them, choosing a dry day for the purpose. The weed killer is most efficacious if applied when the walks are in a moist state, and at this season they are generally so, whereas in the spring a well-made road or path is as dry as tinder (and rightly so) within 1 inch or so of the surface, needing exceptional rains (at that season) to bring them to the desired moist state.

The Gardens, Tan-y-bwlch, North Wales.

INDOOR GARDEN.

CAMPANULA ISOPHYLLA AND ALBA.—Only a few straggling flowers now remain on these plants. Young growths are pushing up freely, and these, if taken off and inserted, six

or eight in 3-inch pots, will soon root in a close frame under cool conditions, and make much better plants for flowering next year than cuttings rooted in spring. They should be kept in these pots all the winter, and potted on in spring as they are into 5-inch pots, or made up into baskets. For hanging in a window there is no plant more suitable. The variety *Mayii* is a distinct improvement on the type.

CALCEOLARIAS.—The plants are ready for potting, if not already potted, into 3½-inch and 5-inch pots. Use a compost of three parts fibrous loam, one of leaf-mould, adding plenty of sand. Keep them near the glass in a cool pit. Watch carefully for slugs, which are very partial to *Calceolaria* leaves. Fumigate if there is the least sign of green fly.

CHRYSANTHEMUMS.—These should by this time be all transferred to safe quarters, either in the houses, in a skeleton frame where blinds can be rolled on at night if necessary, or the latest plants for flowering after Christmas placed for a time under the shelter of a warm wall. Plenty of work will be found in disbudbing the bush plants. On large bush plants one flower on each shoot will be sufficient, except for the small-flowering Pompons and singles, or allow the plants to produce the terminal buds, removing the side buds around these. Discontinue the use of nitrates, as they appear to encourage mildew when the plants are inside. Peruvian Guano is a very good artificial manure to use in conjunction with animal manures at the present stage. Gradually reduce the supply when the buds show colour.

VIOLETS.—All the lights should be placed on these at night from now onwards. Cover those planted in their permanent quarters in summer with movable frames. Remove the lights during the day on every favourable occasion, and attend carefully to the watering, especially of those lifted, till established in their fresh quarters. Pick off all dead and decayed leaves, also the runners.

BEGONIA GLOIRE DE LORRAINE AND VARIETIES.—When in flower an intermediate temperature will be more suitable. The individual flowers last longer, and the flowering period will be considerably prolonged. The flowers should still be removed from the later plants and those in baskets. We find the latter more useful after the *Chrysanthemums* are over.

GENERAL REMARKS.—Great care is necessary in the watering of *Malmason Carnations* during winter, especially if kept in a cold frame. Insert cuttings of the winter-flowering varieties for flowering about this time next year. If in plunging material, lift the *Eucharis* for flowering early in the year, giving them a rest for a month or six weeks. Place *Schizanthus* on a shelf or give them a light position in a pit, maintained at cool greenhouse temperature. Prick off seedling *Cyclamen* where necessary. If the seeds were dibbled in pans about half an inch apart they can remain till large enough for potting off. Elevate near the glass to prevent their becoming drawn. To develop to perfection the beautiful foliage of *Gesnera exoniensis*, give it the sunniest position in a warm house. *Fuchsia* standing outside may be placed in their winter quarters. No better place can be found for them than a shed or cellar where frost will not reach them.

Royal Botanic Gardens, Kew.

A. OSBORN.

FRUIT GARDEN.

MELONS.—Plenty of artificial heat is required to mature the last batch of Melons. The finest fruit cannot be obtained at this time of year, but in order that they may be as good as possible at this late season the greatest care must be taken in the management of the plants. Injudicious watering now will have a prejudicial effect, both on the flavour of the fruits and on the plants, which are very prone to canker at this season. Care must be exercised in the application of stimulants. Liquid farmyard manure must now be dispensed with. *Le Fruiter* will be of benefit, and may be used either in liquid form or sprinkled on the surface of the bed. Give plenty of air when favourable, leaving a little on the top of the house at night. This, combined with plenty of heat in the pipes, will encourage a buoyant atmosphere, which is essential to good flavour. While the fruits are ripening the atmosphere must be kept dry.

CUCUMBERS.—Avoid overcropping plants which are just commencing to fruit, as at this season root action is very slow, and overcropping will quickly exhaust the plants. No more fruits should be left to mature than are required for use. The general treatment of the plants must be very different now to that given during the summer months. Excessive moisture will produce a stagnant atmosphere, a condition which is very favourable to the Cucumber "spot." Give small top-dressings of loam from which all the fine soil has been shaken out, and a little well fermented horse manure as the roots appear on the surface. Endeavour to keep clean young plants which are to supply the winter crop. An occasional syringing with weak soft soapy water, with a little sulphur added, will assist in attaining this object. Train the growth regularly over the trellis, avoid overcrowding, and pinch the shoots before they ramble too far. Do not encourage the plants to over luxuriate, as this is not conducive to fertility during the dull sunless weather which we are likely to experience from now onward. Keep a night temperature of 65° or 70° according to the outside temperature, allowing an increase of 5° or 10° during the day. Give a little air when the weather will permit. This will dispel excessive moisture and sweeten the atmosphere.

TOMATOES.—Cut off the fruits from plants which are becoming exhausted, and place them on a shelf in a late vinery, where they will ripen; afterwards throw the plants away. We are having good weather for the winter fruiters; the early trusses have set well. The flowers must be pollinated about noon every day. Keep the

atmosphere on the move by having the ventilators always open a little, with a fairly brisk heat in the pipes. An occasional sprinkling of Le Froiier will benefit the plants, now that the pots are becoming filled with roots. Later on, when a good set has been secured, a top-dressing of loam, mortar rubble, and wood ashes will encourage the fruits to swell freely. Sow seeds now for raising a batch of plants for the earliest supply next year. Keep the plants growing steadily near the glass in a temperature of 35° to 60°, potting them on when the pots are well filled with roots. E. HARRISS.

Fruit Department, Royal Gardens, Windsor.

ORCHIDS.

Now flowering in an intermediate temperature are two beautiful hybrids, *Sophrone-Cattleya chamberlainiana* and *Sophrone-Lælia Heatonensis*. The former was obtained by crossing *Cattleya Harrisii* with *Sophroneitis grandiflora*; the latter is between *Lælia purpurata* and *Sophroneitis grandiflora*. Both are charming plants, and anyone in possession of an intermediate house would do well to include them in the collection; the brilliant coloured flowers just at this season of the year are sure to be appreciated. These plants are very easily cultivated, and should be suspended close to the roof of the house, and now that they are finishing up their growths the lightest and warmest part of the house is best for them. Until growth is completed they should be kept moist at the root, then give only sufficient water to keep them fresh. Avoid water lodging in the centre of the growths. *Sophrone-Cattleya eximia*, a cross between *Cattleya bowringiana* and *Sophroneitis grandiflora*, is just commencing to send up its flowers through the half-made growths, and should receive the same kind of treatment. The above cultural remarks are applicable to *Lælia pumila*, *L. p. præstans*, *L. p. Gutton Park variety*, and *L. p. dayana*, which are also in bloom now. These plants are also very useful and desirable Orchids to grow, being of excellent shape and colour. In the same temperature *Epidendrum fragrans* is in bloom. The sweet perfume of the flowers at certain times pervades the whole house. The plant grows equally well in a shallow pan or flower-pot, but it requires only a very shallow compost in which to root. Well-drained peat and sphagnum moss will suit the roots. *Epidendrum radiatum*, *E. catatum*, and *E. acceptrum* are also in bloom. The latter species, having tall, almost erect, flower-spikes, is always useful for decorative purposes. These *Epidendrum* grow well if placed where they may obtain plenty of light without actual sunshine. They require to be kept fairly moist at the root at all times.

ONE OF THE BEST ORCHIDS now flowering is *Habenaria militaris* or *H. pumila*, and where a number of plants are cultivated they produce a brilliant show of colour in the house. This species is a native of Cochinchina, and should be grown in the warm house. While the plants are in bloom they should be kept well supplied with water at the root, but immediately the flowers fade the plants should be placed on a dry shelf in full sunshine. The foliage will then commence to change colour, and the quantity of water should be gradually diminished until the leaves and stems have completely died down. It is not advisable to cut the stem off when decaying; if left alone it will fall away naturally. During the resting period keep the plants in the same position on the shelf and near the roof glass, but on no account should the compost be allowed to remain dry for any length of time. The safest plan is to take the pots down once or twice each week, carefully examine them, and those that are dust dry should be lightly sprinkled with soft tepid water from a fine rose watering-can. *H. Susanna*, *H. carnea*, and its pure white variety *nivosa*, also in bloom, require exactly the same treatment as for *H. militaris*.

ONCIDIUM PAPILLO and *O. KRAMERIANUM* when grown in a light position in the *Cattleya* house will now be in bloom. Everyone who has a warm intermediate house should grow both these *Oncidiums*. As is generally known, the flower-stems continue to produce fresh flowers for some considerable period. As each flower dies another takes its place, but it is not advisable to prolong the flowering season, and those who wish for strong plants and large flowers next season would do well to cut off each spike after it has produced four or five flowers. Grow them in pans near the roof glass.

Burford Gardens, Dorking.

W. H. WHITE.

KITCHEN GARDEN.

SEAKALE.—Plants of this vegetable which is in such demand about Christmas and onwards, have grown vigorously this season. The plants have fully occupied all the space allotted to them, and have formed excellent crowns for forcing, only some means must necessarily be adopted to hasten their maturity, so that they will be ready for placing in heat as soon as possible. Like other early forced plants, they require longer time to grow at this season than succeeding lots will do later on. The best way to hasten the plants in the shedding of their leaves is to go round the roots with a spade about 4 inches or 6 inches from the crowns. After this is done the foliage will drop a good deal and expose the crowns to more light and air. Then as soon as the leaf-stalks leave the top parts the Seakale roots easily; the roots can be lifted and potted, putting from three to five good crowns into a 9-inch pot, which should be plunged in some bed where there is a bottom-heat ranging from 70° to 80°, and a hot-bed formed with equal parts of leaves and horse manure. The latter should be turned over several times before being placed inside a large box frame, deep enough to allow another 9-inch pot being inverted on the top of those that contain the Seakale roots. When placing the heating material in the frame, make it fairly firm, and by thrusting

a stick into the manure it can be ascertained when the mixture is of the proper warmth for plunging the pots that contain the Seakale roots. Plunge deeply to allow of the upper part of the hot-bed material being packed firmly round the union of the top and bottom pots to exclude light. The drain holes of the inverted pots must also be thoroughly closed, as the least gleam of light is injurious to this succulent vegetable. Where leaves and manure are plentiful, the whole frame could be filled to the top after the roots have been plunged and covered with inverted pots. Further, if an ordinary brick is placed under each corner of the frame used, linings of leaves and manure could be placed round the outside of the frame to excite some warmth when the bottom-heat inside the frame shows signs of declining; and by covering the frame well up with mats during the night a great deal of the warmth can be preserved.

RHUBARB.—This splendid substitute for Apples has shed its leaves, and is quite ready for lifting to be forced. As the Apples are a very light crop this year, larger quantities will be required. Place old barrels and boxes over the crowns, and cover with leaves and straw manure, the latter having been thoroughly mixed with the leaves to the depth of from 18 inches to 24 inches. This placed all round and over the boxes should cause a nice genial warmth inside, which will soon excite the crowns of Rhubarb into growth. It sometimes happens that leaves and manure are not readily procured for covering Rhubarb crowns outside; therefore other means have to be adopted, such as placing the crowns in old boxes, to be placed under the stagings of greenhouses or where some warmth may be obtained. As long as the crowns can be excluded from light they will do very well. When the Rhubarb roots are placed in boxes, some fine soil should be worked firmly into all the crevices, so that the roots may receive full benefit of water when applied. A handful of straw placed lightly on the tops of the boxes where the Rhubarb roots are planted will greatly help the Rhubarb crowns to start into growth, and more particularly so if it is slightly sprayed every day with a syringe. J. JEFFREY.

The Gardens, St. Mary's Isle, Kirkcudbright.

THE EDITOR'S TABLE.

ASTER PERRY'S FAVOURITE.

"R. P." writes: "I am sending you a Starwort which I came across in a collection growing in Mr. Scott's nurseries at Horsham under the name of Perry's Favourite. The different varieties are planted in bold groups, and make a grand display, especially the dwarf-growing ones. The variety enclosed was conspicuous for its pleasing shade of colour, quite different from any of the others. A group of this variety, backed with bushes of variegated *Acer Negundo* var., was very pleasing. I do not remember having seen this variety before, and would draw the attention of others to it who wish to form a good collection of dwarf Asters. Another group growing near was of the valuable *A. Amellus bessarabicus*. These plants, like many others, were shown to the best advantage by Mr. Scott, who exhibited some years ago in the Royal Botanic Gardens.

APPLE WARNER'S KING.

From The Gardens, The Terrace, Oaken, near Wolverhampton, Mr. Charles Benham sends a Warner's King Apple of extraordinary size, with the following note: "I enclose an Apple grown here; it was blown off the tree by the wind a fortnight ago, and when picked up weighed 31 oz. I should like to know the name of the variety. There is a fair crop, and several more fruits are about two-thirds the size of the enclosed."

GOLDEN-LEAVED RUNNER BEAN.

From Houghton Hall Gardens, Tarporey, Mr. T. Winkworth writes: "I am sending herewith for your inspection leaves of a golden-leaved Scarlet Runner Bean, which I find comes perfectly true from seed. I am sending it thus late in the season (October 4) so that you may see how well it lasts into the autumn. It makes a very ornamental plant and would look well in any position suitable for climbing plants. I am sending also flowers of what I think a fine variety of *Nicotiana Sandersii*. Grown singly in 9-inch and 10-inch pots this plant has been highly satisfactory, and has flowered abundantly for many weeks."

[The pale golden leaves of the Runner Bean and the flowers of the *Nicotiana* were all that Mr. Winkworth claims for them.—Ed.]

RECENT PLANT PORTRAITS.

THE October number of the *Botanical Magazine* figures:

Brachyglottis repanda.—Native of New Zealand. This is a fine foliaged bush, with large panicles of whitish green flowers of no beauty. It is also known under the synonym of *Senecio Fosteri*. In its native country this is known as the paper tree, the back of the leaf taking ink capitally, and being often used for correspondence. Its native name is puka-puka.

Skimmia japonica.—Native of Japan. This is a well-known hardy shrub, which, when duly fertilised, bears bunches of from six to nine globular red berries.

Forsythia europæa.—Native of Albania.—This is hardly distinguishable from the well-known Chinese species known as *F. viridissima*, several of the characters constituting a difference being inconstant. It is solely interesting from being found in Europe.

Colchicum hydrophilum.—Native of Asia Minor. This is a pretty free-blooming but rather small-flowered species, with pale rose-coloured flowers, produced over an unusually lengthened period of about six weeks during January and February. It flowered well in the alpine house at Kew, but is quite hardy.

Mormodes buccinator.—Native of tropical America. This is said to be the most polychromatic Orchid in the world, and as variable in shape, for no less than seven forms described as species have been reduced to this species. The form here figured is very showy, with bright orange flowers.

The second number of the *Revue Horticole* for September figures:

Euphorbia fulgens.—Much better known in British gardens under its synonym of *E. jacinthiflora*, whose long wreaths of bright orange-scarlet flowers are so conspicuous an ornament of our stove houses during the dull winter months.

The first part of the *Revue Horticole* for October figures:

Tillandsia dianthoides.—Native of Uruguay. This is a pretty little epiphytal Bromeliad growing on the branches and trunks of trees. It has spikes of small, deep blue flowers, coming out from deep rose-coloured bracts.

The October number of *Revue de l'Horticulture Belge* figures on a fine double plate a handsome variegated form of

Dracena Bruante, clearly and heavily striped with gold, and named *Souvenir de François Buysse*. W. E. GUMBLETON.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, W.C. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

Legal Points.—We are prepared to answer questions of law which have anything to do with the subject of gardening and forestry. The questions should be as clear and explicit as possible, so that there can be no doubt as to the point of the question. Answers will be found in a separate column headed "Legal Points."

ROSE PLANTING (Old Subscriber).—You will do quite right in double digging the soil and to mix with it in the way you describe some thoroughly-decayed farmyard manure. The manure ought to

be well decayed and put at the bottom, so that the roots of the Roses will not come directly in contact with it. We should prefer to dig in the manure first, then spread the loam soil on the surface afterwards, lightly digging it in. This is just what the roots of the plants would like, it would help them to become established quickly. If your soil is at all light, to put a good layer of cow manure below the bottom spit of soil is excellent practice. Burnt garden refuse should also be mixed with the soil. If much manure has been applied to the soil for some years, as we imagine may be the case, as you are replanting it would be as well to give a dressing of chalk at the rate of 2 lb. to the square yard, incorporating it with the surface soil.

COTONEASTER (A. M. L.)—The enclosed spray was simply a mass of scale which is rapidly killing your Cotonaster. It may be destroyed by syringing with any of the numerous insecticides which are sold for the purpose, carefully following the directions given, or home-made paraffin emulsion will also be effective. This is prepared by taking a wine-glass of paraffin and a little more of soft soap, both mixed together with hot water to about the consistency of paint, then to this add three gallons of water, if slightly warmed so much the better. This must be thoroughly mixed together by drawing up a syringe full and discharging it forcibly into the mixture, repeating this half-a-dozen times or so. Then syringe the Cotonaster thoroughly with the mixture, discharging each alternate syringe full back into the receptacle in which it is contained, thus keeping the whole in a state of agitation, as without this the paraffin is apt to collect on the top. Take care that none of the mixture enters the soil near the roots. Three syringings at intervals of about a fortnight should destroy all the pests. Before growth recommences in the spring it will be as well to syringe the plant again a time or two, as a few may possibly escape the autumn treatment and increase again rapidly with the return of warmer weather.

POTATOES NOT DECAYING (G. E. V.)—The reason why Potatoes do not decay is not always easy to answer, as this mostly occurs in a dry summer, and also in a dry or poor soil, and depends on the condition of the seeds when planted. Another and also most frequent cause of the seed not decaying is late planting, then a period of drought causing the seed tuber to harden instead of sprouting freely, and when it does do so there is a weakened growth and a poor crop. You could have helped us much in our reply had you given us a few particulars. You can in the future readily prevent the mischief by simply cutting a small slice from each tuber a short time before planting; this will assist the seed tuber to decay and the energies of the plant to push out freely. Many tubers are so tightly bound with a thick skin that they do not decay readily in a dry season, but this does not always happen, and can be avoided if the skin is cut or loosened as advised, but it is best done in advance of the planting, and at the planting the seeds or cut portion should be at the lower part of the drill.

TRAINING VINE (W. B. Welch)—The Vine should be, in January, cut back at the next pruning, so that about 1 foot will be trained to the trellis, leaving some 4 feet or 5 feet of stem. The leading shoot must be trained up the roof during the next season's growth, and at the next winter-pruning another 3 feet or 4 feet may be left, and so on until the top of the roof is reached. From the other buds which will burst into growth next spring, one on each side of the stem should be trained along the front of the house, parallel with it. These will eventually form the permanent rods. Next winter they, too, must be cut back to 3 feet or 4 feet; then in 1907 side growths will issue from these horizontal rods which have been cut back. They, in turn, must be trained up the roof and treated exactly like the leader first formed. You will thus have a

series of shoots trained up the trellis from horizontal rods on either side the first leader. We hope this is quite clear to you. As each 3 feet or 4 feet of new growth is allowed to remain annually on the leaders, side growths will issue which will bear bunches. You cannot expect to have fruit next year. It will be far better to encourage the leader and the two shoots trained horizontally. The shoots which are trained up the roof from these horizontal shoots must be at least 2½ feet apart, as they will, of course, be the permanent rods. How much growth you should leave at the annual pruning depends upon its size. If the growth is thin it would not be advisable to leave more than, say, 2 feet. Encourage the Vine to make good shoots by giving it good soil and occasional top-dressings. Syringe the house in the afternoon, about four o'clock in summertime, when it must be closed so as to increase the temperature by sun-heat, as you have no fire-heat. Very little or no syringing is necessary in cool damp weather. You cannot expect the Vine to grow and fill theinery in a year or two. To leave thin, unripened wood to form the main rods is only to court failure.

OSTROWSKIA MAGNIFICA (Rev. R. M. G.)—Although treated with due care and attention this plant refuses to flourish in many gardens. It will only make itself at home in certain positions, and these have to be found by experience, for given approximately the same positions in two different gardens it will probably do well in one while in the other it will refuse to grow. Essential conditions necessary for success include a deeply-worked, well-drained loamy soil, in a somewhat warm and sheltered position. After the season of growth is over the root should be protected against excessive moisture by placing a hand-light or pane of glass over it to throw off the rain. This protection may be removed in October, exposing the plant to all weathers, as it is perfectly hardy. It is not necessary to pot up the plant and keep it in the cool house as suggested, but it may be planted out at the present time. The soil should be broken up to quite a depth of 2 feet, and when planting some sharp sand should be placed around the root. Protection is sometimes necessary in spring from late frosts and cutting winds.—W.

PLANTING PERENNIALS (E. C. A.)—You may, if you particularly wish to do so, leave the planting of your perennials until the spring. Early autumn planting is always recommended in preference to spring planting for hardy perennials, because by doing so the plants are able to become well established in the soil before winter and then start into vigorous growth in spring. Still, if you prepare the border well and put out strong plants, say, at the end of March, you will obtain very satisfactory results. Where you lose of course more especially is with those plants that flower early. You cannot expect plants that bloom in late April and May to do very much good the first year if they are not put out until the end of March. Later flowering plants have more time to make good growth before flowering, and naturally are not so much affected by late planting. Endeavour, if you can, to plant the early flowering things now and the late ones in the spring.

MYRTLE (W. E. Jennings)—The spray of Myrtle enclosed was covered with scale insects. The first thing to do to get rid of them is to syringe with paraffin emulsion or some other soapy insecticide. After one or two syringings the insects may easily be scraped off the plants. In the course of a few days repeat the syringing so as to kill any that may not have been reached by the first application. After one or two syringings you ought to be able to remove the scale with warm water and a sponge or brush. Paraffin emulsion is made by dissolving one quart of soft soap in two quarts of boiling water. While the water is still boiling add one pint of paraffin oil (it is not safe, however, to do this over a fire), and at once work the mixture through a syringe

for five or ten minutes, when there should be a perfect emulsion. To 1 pint of the emulsion add 10 pints of soft water before using.

JUDGING AWARDS (J. E. P.)—By adding the word "kinds" to the class for "six table plants, distinct," the committee naturally put the judges in a difficulty. If they had stopped at "distinct" and left out "kinds," which is a term of such diverse interpretations, the competitors 2 and 3, one showing three distinct Crotons, and the other also three Crotons, would not have been disqualified. But if the judges held that the term "Croton" or "Dracæna" means a "kind," as many do hold, then they were right. If Potato or Pea or Apple or Pear means "kind," as is universally admitted, then must Croton or Dracæna also. The trouble all comes from using as a terminal to the class the word "kinds." Best omit it altogether in the future. In the second case, of cut hardy and half-hardy biennials and annuals, Antirrhinums are properly shown as "biennials," under which section they are invariably classed, but whether regarded as hardy or half-hardy does not, under the inclusive wording of the schedule, matter. It is absurd to rule that these plants will flower the first year from seed. Pentstemon will do so also, and so will Hollyhocks, Delphiniums, Phloxes, and many other *bona fide* perennials. If Snapdragon seed be sown in July the plants do not flower the same year. If it was insisted that Snapdragons would flower the first year from seed, hence could not be biennials, they could therefore have been admitted as annuals. The class is much complicated by including biennials and annuals, as the interpretation placed on both designations is a very wide one, and the awards made seem to have been anything but happy ones.

COLEUS (A. H. Haydon)—Now is a good time to put in the cuttings, and in order to obtain shapely bushy plants the shoots must be pinched very early. When the cuttings are rooted and are about 6 inches high the points should be pinched out. During the growing season it is necessary to pinch the shoots often so as to induce a bushy habit. When you see that the shoots are getting thin and straggling pinch out the points; this, of course, will cause other shoots to grow and so preserve the bushiness of the plants. Frequent pinching, a position on a shelf near to the glass, to prevent the growths becoming weak and drawn, a temperature of about 60° during winter, careful watering at that season, a final potting in May, and pinching out the flower-buds as they appear are important points. See an article on the Coleus in THE GARDEN of the 16th ult.

RUNNER BEANS ON HILLS (J. H.)—We do not know what was in your friend's mind in recommending the growing of Runner Beans on hills, as the term admits of various interpretations. Ours would be this: To open holes 2 feet over and 1 foot in depth 6 feet apart, to well break up the bottom soil, and with it add a good dressing of well-rotted manure. Then return some of the thrown-out soil, mixing more manure with it, and raise the soil of the hill fully 6 inches above the level of the other soil. If that work were done in March the soil would have well settled down before sowing the seeds at the end of April. Sow nine seeds only to each hill so as to give the plants ample room. If the centre settles down a little, leaving in each case a slight basin, that will enable the Beans to be freely watered later. Get tall stakes, fix them in round the Beans, thus making of each hill a tall cone of sticks and Beans.

MICHAUXIA TCHIHATCHEFFI (A. E. P.)—So far this plant has not proved to be very free flowering in this country. Plants often attain a certain size, and when they ought to flower have a bad habit of dying off. The best flowering specimen that we have seen was grown in a pot till it got to nearly flowering size, and was then planted out in a warm south border, where it

threw up a stout stem and flowered freely. I perished shortly after without maturing seeds. The best way to treat the seedlings would be to pot them off and grow them on in a cold frame, giving them a compost of sandy loam and leaf-soil, potting them on again as they require. It is quite unlikely that they will flower before they are two years old at least. When of sufficient size they may be planted out, selecting a warm sunny position in somewhat gravelly soil, supplying plenty of moisture during the growing period.

ROSE BUDS (A. B. C.).—This frequently happens with excitable kinds, but it is not wise to encourage these premature growths, for they never can make wood strong enough to stand our winters. Some growers adopt the plan of budding new Roses early in May, then, by bending over the Briar growths, the buds are induced to break and fairly good blooms obtained in autumn. But in your case, seeing the buds were not inserted until July and August, we should advise you to cut back such growths in October, leaving one or two buds, not more. This will concentrate the energies all in these basal buds, and next spring they will start with the same vigour as though they were now dormant.

REPLANTING ROSES (Toby).—If you take up your Roses now carefully and plant them again as soon as possible we do not think they will suffer very much next year. Of course, as they are fairly old plants, they are bound to feel the disturbance more or less, but not sufficient to deter you from moving them. A replanting in good soil, too, will enable them to re-establish themselves quickly. You will have to prune them more severely next season than if they were left undisturbed. Take great care not to leave the roots uncovered at all. Lift them up very carefully, preserving all the fibrous roots, and put them in a shallow trench, carefully and thoroughly covering them with soil while the bed is being remade. When replanting, which should be done as soon as possible, so that the plants may make some fresh roots before winter, cut back any of the thick roots which may be bruised or broken.

PLANTS FOR COLD GREENHOUSE (A. M. S.).—For the cultivation of dwarf Irises in pans or pots it is first necessary to procure some good bulbs, which may be purchased at a reasonable price from any good nurseryman. These should be potted up in September, using a compost of loam, with plenty of sand mixed with it. After potting the pans should be plunged to the rim in ashes, either outside or in a cold frame, moving into the cold greenhouse just when they show signs of flowering. As a rule these plants do not flower so freely the second year in pots, and, if satisfactory results are to be obtained, it is advisable to procure fresh bulbs every year. If, however, it is desired to grow the same bulbs again, they should be well ripened off after flowering, and, when dry, shaken out and repotted in fresh soil in the autumn. The following is a selection of some of the best and most suitable kinds for this purpose: *Iris reticulata*, *I. r. var. Krelagei*, *I. stenophylla* (Heldreichii), *I. Danfordiae*, *I. persica* and *vars.*, *I. Histrio*, *I. histrioides*, *I. Vartani*, and *I. alata*. Other bulbous plants for flowering between December and March should include *Eranthis cilicica*, *Colchicum hydrophilum*, *C. crociflorum*, *C. Decaisnei*, and *C. libanoticum*, *Chionodoxa Lucilise*, *C. sardensis*, and *C. gigantea*, *Anemone blanda* and *A. nemorosa*, *Bulbocodium vernum*, *Corydalis bulbosa*, *Crocus ancyrensis*, *C. biflorus*, *C. Imperati*, *C. chrysanthus*, *C. Sieberi*, and *C. versicolor*, *Cyclamen Coum*, *C. ibericum*, and *C. repandum*, *Erythronium giganteum*, *E. Hendersoni*, *E. revolutum*, and *E. Johnsoni*, *Fritillaria aurea* and *F. pudica*, *Galanthus Elwesii*, *G. Fosteri*, and *G. byzantinus*, *Lilium tenuifolium*, *Muscari botryoides album*, *M. conicum*, and *M. armeniacum*, *Narcissus cyclamineus*, *N. minimus*, *N. monophyllus* (*Bulbocodium*), *N. triandrus albus*, and *N. citrinus* (*Bulbocodium*), *Romulea*

Bulbocodium, *Scilla sibirica* and *var. alba*, *S. bifolia*, and *S. italica*, *Trillium grandiflorum* and *T. sessile californicum*, *Tulipa Lownei*, *T. montana*, *T. persica*, and *T. pulchella*. Besides these bulbous plants there are many alpine and other plants that do well in pans and flower freely year after year, like *Saxifraga apiculata*, *S. burseriana*, *S. oppositifolia*, and *S. lingulata*, *lantosca*, *Shortia galacifolia*, *Arabis Billardieri*, *Achillea rupestris*, *Alyssum podolicum*, *A. pyrenaicum*, and *A. montanum*, *Arenaria montana*, *Aster alpinus*, *Gentiana verna*, *Geranium argenteum*, *Erodium supracanum*, *Draba Aizoon*, *D. aizoides*, *D. dedeana*, and *D. grandiflora*, *Dianthus caesus*, *Adonis amurensis*, *Ethionema pulchellum*, *Androsace lanuginosa*, *A. sarmen-tosa*, *A. villosa*, and *A. carnea*, *Armeria cæspitosa*, *Campanula pusilla*, *C. portenschlagiana*, *C. Allioni*, and *C. garganica*. The above represent but a few of what could be named and worthy of a place in the cold greenhouse, many good things being left out of this list.

SPOTTED SNAKE MILLIPEDES (G. Hendry).—The creatures which are attacking your Apples, which I presume are lying on the ground, and which you find in your Strawberries, are one of the snake millipedes, the spotted snake millipede (*Blanjulus guttulatus*). They are most destructive pests, as they feed on the roots of many different kinds of plants. There is, unfortunately, no royal road to their extirpation; liquid insecticides are of no use. They may be trapped by placing pieces of Potato, Mangold, or Turnip in their haunts, either just covering them with earth or a Cabbage leaf, or they may be poisoned by dipping these baits in a stong mixture of Paris green and water. These poisoned baits would, however, kill any other creature which ate them, so that they should be used with due precautions. A heavy dressing of gas-lime will kill them, but you would not be able to cultivate the ground for some months afterwards, the time depending on the amount and freshness of the gas-lime.

PLANTS FOR DRY BANKS (C. Turner).—The number of plants suitable for clothing dry sloping banks is decidedly limited, among the best for the purpose being *Ivies*, particularly the *Irish Ivy*, the *St. John's Wort* (*Hypericum calycinum*), the larger *Periwinkle* (*Vinca major*), and its variegated-leaved variety. *Cotoneaster microphylla*, which stands in the foremost rank for this purpose, is a handsome shrub at all seasons, but additionally so during the winter, when the plants are studded with crimson berries. The tiny *Box-like* leaves are evergreen in character. The *Savin* (*Juniperus sabina*), with its deep tone of colour summer and winter alike, does well on sloping banks, though, of course, excessive drought, as with most of the other plants, is against it. The double-flowered *Bramble* is particularly drought-resisting, and very handsome in July and August when in bloom. The different forms of *Cistus* and *Helianthemum* would also serve to brighten up the bank during the summer. For banks of limited extent the lesser *Periwinkle* and its varieties do quite as well as the larger form above alluded to.

MICE ATTACKING DAFFODILS (M. A. G. D.).—The attacks of mice are very difficult to cope with; indeed, many practical men have failed utterly to exterminate them. Poisons and traps of different kinds have been used with varying success, one kind being often for a time effectual, then it fails utterly. The presence of a cat is one of the best deterrents, and failing this we should advise you to vary the traps and bait. If the mischief is caused by field mice, which are characterised by a larger head and shorter tail than the common kind, it will be found that they in nearly every case run along in a beaten track, and may be trapped by sinking a large stone pickle jar with a contracted mouth in their run. The jar should be sunk at such a depth that the top is just on a level with the soil, and some water must then be put therein, but not enough to reach up to the shoulder of the jar. This will prevent

their getting out when they fall in. To hide the water a little bran may be sprinkled on the surface. Do not cover your *Lilium candidum* in any way, as the plant is quite hardy, and even if the leaves now produced are cut by the frost, which sometimes happens if it is very severe, the flowering is not affected thereby, as the flower-stem is pushed up independent of these radical leaves.

APPLE SCAB FUNGUS (S. W.).—The leaves of your Pear tree are attacked by a fungus commonly known as the Apple scab fungus (*Fusicladium dendriticum*). It infests the fruit as well as the leaves. It is one of the most destructive pests that Apple and Pear trees are subject to, and if all the shoots are as badly attacked as these you sent you need not be surprised that the trees do not bear properly. Spraying with Bordeaux mixture is the best remedy; spray just as the flower-buds begin to open, again when the petals are falling, and a third time when the fruit is rather larger than Peas. In wet weather spray again in ten days or a fortnight's time. In the course of the winter, before the buds show any signs of opening, spray the trees with the following solution, which is much recommended, and is made as follows: Put 5lb. of sulphate of iron into a wooden vessel, and pour over it 1lb. of sulphuric acid, and slowly add 10 gallons of water, and stir thoroughly before using. This mixture should not be allowed to get on the skin or clothes, and should be applied until the trees are thoroughly drenched with it.

FLOWERS FOR SOUTH BORDER (C. L. V. Baker). For the above purpose one has a wide choice of suitable subjects, and among the bulbous plants may be mentioned the *Belladonna Lily* (*Amaryllis Belladonna*), *Tritonia crocosmaeflora*, *Tigridia Pavonia*, *Camassia esculenta*, and other species, *Asphodeline liburnica*, *Fritillarias* of kinds, *Gladiolus*, and many of the bulbous *Irises*, such as *I. Heldreichii*, *I. reticulata*, *I. juncea*, and others. If the soil is good enough *Eremurus himalaicus* or *robustus* might be given a trial, and such things as *Acanthus mollis* are very handsome against a south wall. Also against a south wall might be grown the Algerian *Iris* (*I. stylosa*), as well as some of the dwarf German ones, *I. pumila* and *vars.* Amongst these might be planted any of the *Tulips* where there is room, as well as *Hyacinths*. Many of the perennials do well in a south border, including *Alyssum saxatile*, *Arabis albidia*, *Iberis garreana*, *Zauschneria californica*, *Dianthus* in variety, *Geranium armenum* and *G. ibericum*, *Pentstemons*, *Aubrietia*, *Pæonies*, *Sedum spectabile*, as well as many of the common annuals.

PLANTING GARDEN (H. E. D.).—It appears to us that it would be a very good plan to plant the narrower borders with the better class of herbaceous subjects, such as *Achillea Ptarmica flore-plena*, *Anemone japonica*, *Aquilegia*, *Asters* in great variety, *Campanulas* of sorts, *Centaurea montana*, *Chrysanthemum maximum*, *Coreopsis grandiflora*, *Delphiniums* of sorts, *Dictamnus Fraxinella*, *Doronicums*, *Echinops*, *Eryngium*, *bardy Fuchsias*, *Gaillardias*, *Galega officinalis*, *Gypsophylla paniculata*, *Helenium*, *Helianthus*, *Hemerocallis*, *Iris*, *Lychnis*, *Monarda*, *Pæonies*, *Palox*, *Poppies*, *Pentstemons*, *Potentillas*, *Pinks*, *Rudbeckia*, *Statice*, *Tradescantia virginica*, *Tritomas*, *Trollius*, and many other subjects. The wider borders might be utilised for a collection of the finer evergreen and flowering shrubs, among them being *Aucubas*, *Barberries*, *Box*, *Buddleia globosa*, *Choisya ternata*, *Cotoneasters*, *Crataegus pyracantha* (Fire Thorn), *Cercis siliquastrum* (Judas Tree), *Coluteas*, *Cornus Mas* and *C. Spathi*, *Cydonia japonica* in variety, *Cytisus*, *Deutzias*, *Elæagnus*, *Escallonia* of sorts, *Euonymus*, *Forsythias*, *Genistas*, *Holly* (*Ilex*) in variety, *Hamamelis*, *Hibiscus syriacus* of sorts, *Hydrangeas*, *Hypericum*, *Kerria japonica flore-plena*, *Ligustrum* (Privet), *Leycesteria formosa*, *Lavender*, *Magnolias*, *Olearia*, *Osmanthus*, *Philadelphus*, *Rhus*, *Rosemary*, *Ribes*, *Spiræas*, and double *Furze*. Of conifers you have the choice

of many kinds of the Cypress family, Retinosporas, Yews, and others. You speak of standard Lilacs, which individually are very beautiful, but are apt to be monotonous, especially while there is such a choice of other small trees available for the same purpose. Mention may be especially made of the Almonds, Cherries, *Cotoneaster frugida*, *Crataegus* (Thorns), Laburnums, Magnolias, Prunus (Plum), Peach, Pyrus, and Robinias, the smaller kinds. By thus separating the borders of shrubs and herbaceous plants you will, we think, avoid too much monotony.

MOLES IN GARDEN (E. F. S.).—We know of no better trap than the spring iron trap, as that, when properly inserted in the runs, seldom fails to catch the vermin. Still, gloves should, as a rule, be used when setting it, as the scent from human hands is often strong in the runs. A little liquid tar poured into a run often scares the moles away. When working in loose soil fairly near the surface, it is often well to be on the look-out with a steel fork, and so soon as the soil is seen to move to quickly lift the mole out and kill it. Where these pests cannot be kept in check in this way, it is wisest to call in a professional mole-catcher. Paraffin poured into a deep run emits a most noxious smell, which drive away the moles also.

NAMES OF PLANTS.—M. F. Sander.—1, *Artemisia vulgaris*; 2, *Polygonum cuspidatum*; 3, *Helianthus rigidus* (poor variety). Withering of latter evidently due to drought or pooriness of soil.—*W. West.*—*Aster macrophyllus*.—*Rutha.*—*Arctostaphylos alpina*.—*Salvia.*—The plant is the Clary (*Salvia sclarea*). We are very glad to be of help to you.—*Lady Davis.*—*Escallonia floribunda*, known also as *Escallonia montevidensis*.—*H. J. Allen.*—1, *Clerodendron fectidum*; 2, *Physianthus albens*, also known as *Arauja sericifera*.—*W. H. P., Devon.*—The plant with flower is *Abelia rupestris*; the other probably *Eugenia orbiculata*, but to be certain must have flower.—*Conte J. Lurani Cernuschi.*—*Quercus pedunculata*.—*Mrs. Kirkpatrick.*—1, *Aster Novae-Angliae* var. *pulchellus*; 2, *A. N.-A.* var. *Mrs. J. F. Rayner*; 3, *A. Novi-Belgii* var. *niveus*; 4, *A. longifolius*; 5, *A. laevis*; 6, *A. cordifolius*; 7, *A. dumosus*; 8, *A. diffusus* var. *horizontalis*; 9, *A. Novi-Belgii* var. *grandiflorus*; 10, *A. ericoides*; 11, *Helianthus giganteus*; 12, *Phlox paniculata* var.; 13, *Chrysanthemum lacustre*; 14, *Rudbeckia speciosa*; 15, *Viburnum Tinus* (*Laurustinus*); 16, *Escallonia punctata*.—*Taffy.*—1, *Vernonia altissima*; 2, *Anaphalis margaritacea*.—*C. E. B.*—*Polygonum vacciniifolium*.—*B. T. Fairbridge.*—*Aster multiflorus*.—*F. B. P.*—*Escallonia floribunda*, also known as *Escallonia montevidensis*.—*A. B. C.*—1, *Thuya occidentalis* var.; 2, *Juniperus virginiana* var.; 3, probably *Juniperus virginiana*; 4, *Cupressus pisifera*; 5, *Cupressus lawsoniana*; 6, *Juniperus communis*. It is impossible to say why your trees died without knowing more about them.—*J. E. V.*—1, *Pyrus rotundifolia*; 2, *Neillia opulifolia*; 3, *Diervilla hyrida* var. *Abel Carrière*; 4, *Berberis Aquifolium*; 5, *Ligustrum vulgare*; 6, *Cotoneaster bacillaris*; 7, *Lonicera involucrata*; 8, *Diervilla sessilifolia*; 9, *Prunus cerasifera*; 10, *Viburnum Opulus*; 11, *Cotoneaster Simonsii*; 12, *Perneytia mucronata*.—*J. Gill.*—*Primula Auricula* var. One of the many garden hybrids of *Primula Auricula*, with less glaucous leaves. The plant sent is probably a cross between *P. Auricula* and *P. hirsuta*, judging from the appearance of the leaves.—*Thos Hunter.*—1, *Agathaea celestis*; 2, *Corydalis lutea*; 3, *Aster Linosyris*; 4, *Salvia azurea*.—*Sir Charles Robinson.*—*Salvia Sclarea* (The Clary).—*H. H.*—*Oxalis Ortgiesii*.

NAMES OF FRUIT.—Azaga.—Apple Dutch Mignonne.—*Apple Core, Stourport.*—1, King Harry; 2, Stoke Pippin; 3, Braddick's Nonpareil; 4, Lamb Abbey Pearmain; 5, Stamford Pippin; 6, Colonel Vaughan.—*F. P. B.*—Apple Winter Peach; Pear Glou Morceau.

SHORT REPLIES.—E. E. C.—Your *H. illyhocks* are, I am sorry to tell you, attacked by the fatal Hollyhock rust (*Puccinea malvacearum*), a fungus which in some places has almost exterminated these plants. Burn all the diseased leaves. If they are allowed to rot on the ground certain spores will be liberated which will infect the plants next year. As soon as the new leaves appear in the spring, spray them with Bordeaux mixture two or three times, with intervals of a week or ten days, or better still, burn all the affected plants, wait a year, and then get a fresh stock from some place where the disease does not exist. However, this will not help you much if your neighbours have diseased plants.—*G. S. S.*—*Azie*—The shoots of your Apple trees are attacked by canker, caused by a fungus (*Nectria ditissima*). The best way to treat the trees is to cut off those branches which are badly attacked, and to cut out the diseased parts from others, dressing the wounds thoroughly with coal tar afterwards. The little yellowish white spots on the shoots are lenticles, which play the part of breathing pores on the shoots, just as the stomata do on the leaves. They seem to be unusually abundant on your shoots. To destroy the mossy growths, spray the trees with a caustic alkali wash any time during the winter before the buds show any signs of opening. In using the wash be careful not to get any on your skin, as it is very caustic; wear an old suit of clothes,

and be careful to stand with your back to the wind. It may be made as follows: 1lb. of caustic soda of a strength of 70 per cent., 1lb. carbonate of potash 80 per cent., and 1lb. soft soap. Place the first two ingredients in a vessel which will hold 10 gallons half filled with water, when dissolved add the soft soap, which should be dissolved first in a little hot water, and stir thoroughly, and then fill up the vessel with water, stir again, and the fluid is ready for use. The caustic soda can be purchased in 1lb. tins, which is the most convenient form. As regards the unfruitfulness of your trees, is not this owing to injudicious pruning, or some other defect in cultivation?—*G. S. S.*—*Rosario.*—The makers of the vaporiser alluded to in our issue of the 9th ult. are the executors of Robert Campbell, Water Street, Manchester. You would no doubt be able to obtain one from your local seedsman. The vaporiser is very simply managed. Sulphur is placed in a boiler, and a spirit lamp heats it. The sulphur is given off in the form of vapour, the house being filled with steam, so that every particle of foliage is covered with a sediment like dew. They cost about 15s. each, but are worth double the money.—*T. A. Byggs.*—At this late season of the year it makes little or no difference whether you cut away the unnecessary branches now or at the fall of the leaf, but when they are cut, some time this autumn, all must be removed excepting the one stem which it is intended to bud on. The budding of various kinds of fruit trees should be carried out some time between the end of June and the middle of August, when the sap is running freely under the bark.—*Militat in Sylvis.*—No white Lily worth the growing precedes the Madonna Lily in the open. We suggest *L. candidum*, *L. longiflorum*, *L. auratum*, and *L. speciosum* album as likely to serve your purpose. They will come into flower in the order as written.—*H. George.*—We do not know, neither can we learn, of the Whitty Tree, but the "Dictionary of Gardening" gives Whitten Tree as a common name for *Viburnum Opulus*. This is a well-known native shrub (particularly in the south of England) whose white flowers in spring and red berries in autumn are alike handsome. The Snowball Tree is a variety of this *Viburnum*, in which all or nearly all of the flowers are sterile, while in the type the sterile ones are limited to a scattered few around the outside of the cluster.—*W. D.*—Sow the seeds of Martagon Lilies in the open now. Choose a fairly light soil, preferably shaded slightly by some fruit or other tree. Sow broadcast and fairly thickly, and allow the seedlings to remain two years before you disturb them. No protection will be needed at any time, but a moderate state of moisture must be maintained in order that the seedlings may receive no check. Most Lilies of the Martagon group are easily raised from seeds, and develop into flowering bulbs quickly if carefully tended. Give no manure, but top-dress the site with leaf-soil if it is likely to dry out at midsummer.—*W. E.*—Your plant of *Spiraea Aitchisoni* is probably too young to flower, and it would be better to leave it where it is, when it would almost certainly flower next year. This plant does not flower freely till it gets to a respectable size, but being of quick growth it does not take long, say, two or three years, to attain this. If, however, it is necessary to move your plant, the operation may be performed either now or in the spring. Providing that it is done carefully the moving will not have any retarding effect on the plant, and it is quite as likely to flower next year. Of course, however, one cannot expect a freshly-moved plant to flower so freely as an established one. With regard to the treatment of this plant it requires but little attention besides supplying with water after planting. All the pruning required is to remove dead portions of the branches in spring, besides keeping the plant in shape.

LEGAL POINTS.

TREES ON BOUNDARY (L. R. C.).—Your neighbour is entitled to lop the branches which overhang his land, but he cannot compel you to decrease the height of the trees, although they may interfere with the growth of the plants on his land. There is no such thing as a right to the passage of air, except through defined channels, such as gratings, which have existed for the statutory period. Even lawyers often speak loosely of "light and air cases," but as a rule there is no question of air involved. You might build a high wall on your boundary, provided that you did not obstruct any of your neighbour's ancient lights by so doing, but the maxim is "Let neighbourly love continue."

OUTGOING AND INCOMING TENANT: UNCUT GRAPES (A. M. M.).—See reply to "A. E. A." There is nothing to prevent a tenant picking unripe Grapes with the object of depriving the incoming tenant of the use of them. Under these circumstances it might be desirable to come to an arrangement with the outgoing tenant to induce him to preserve the Grapes for the use of his successor. The outgoing tenant's right to compensation depends upon the nature of the holding, as to which see above.

RIGHT TO REMOVE PLANTS, &c. (One in Doubt). Where a nurseryman's foreman rears plants, cuttings, &c., in his employer's nursery, and the same become a part of his employer's stock, the rights of the foreman in the absence of an arrangement are very doubtful. If the plants, &c., were reared in the nursery with the employer's knowledge and consent, the foreman would probably be entitled to remove them on the termination of his employment, or to obtain compensation from his employer should he decline to permit them to be removed. The circumstances are, however, of a very exceptional character, and the foreman's right would depend upon what took place between him and his employer when the plants, &c., were set out. If the foreman propagated the plants, &c., without his employer's knowledge or consent, we think he would have no right to remove them on the termination of his engagement.

GUN LICENCE (Far Forest).—Our issue of October 7 contains the following reply to a correspondent: "An employee killing rabbits by permission of his employer, under the provisions of the Ground Game Act, requires a gun licence, but not a game licence. If he kills rabbits on the property of some person other than his employer, he will require both a game and a gun licence, and it is quite immaterial whether he must or must not cross a highway for the purpose of reaching the property on which he intends to shoot." "Far Forest" writes suggesting that the answer is inaccurate. He says: "No game licence used to be wanted to shoot rabbits, and surely an occupier of land may authorise one person to scare or kill vermin without any licence on his own land." In answer to this criticism, we have to state: 1, That rabbits are not vermin; 2, that a game licence is required by a person shooting rabbits on the property of some person other than himself or his employer. If, however, the person carrying the gun holds a game licence for a year, he will not require a gun licence.

SOCIETIES.

NATIONAL CHRYSANTHEMUM SOCIETY.

CONFERENCE ON EARLY-FLOWERING CHRYSANTHEMUMS. The conference held in the King's Room at the Crystal Palace on the 4th inst. was an unqualified success, and cannot fail to attract interest and support to these increasingly popular flowers. Six papers were given in all, three in the afternoon and three in the evening.

The meeting in the afternoon was presided over by Mr. Thomas Bevan, chairman of the executive committee, in the unavoidable absence of Mr. C. E. Shea, the president of the society. The room was crowded, and thanks to the provision of a large number of printed copies of the papers to be read, the remarks of the different contributors of papers were followed with greater interest. The conference opened with a paper by Mr. C. Harman Payne, on "The History of the Early-flowering Chrysanthemum." Mr. Payne said: It will be well before we proceed further to lay down a definition of what an "early-flowering" Chrysanthemum really is, and we shall not be far wrong when we say that by that term growers generally understand any variety of a race descended from *C. Indicum* or *C. sinense*, which, grown in the open ground, will bloom without disbudbing before the ordinary exhibition varieties come into flower. Mr. Payne went a long way back in providing historical matter with reference to this flower. He stated that in China early-flowering Chrysanthemums would appear to be known, for an author, Ch'eng-Fu-liao, in a work published in 1783, says that spring, summer, autumn, and winter all have their Chrysanthemums. He said many of us were familiar with the facts relating to the introduction of the Chinese Chrysanthemums into England over a century ago, an event appropriately commemorated by the society in 1890. He also mentioned the work of Sabine, secretary of the Horticultural Society in London. A well-deserved compliment was paid to the late Mr. W. Piercy, who in his day and generation did much to popularise this plant for garden embellishment. In 1846, a writer in the *Florist's Journal* says, "We are all regretting at present (November 10) that our summers are not long enough for the full display of this interesting exotic in the open air." Unlike his predecessors, this writer had not long to wait. About this time Mr. Robert Fortune introduced the Pompon from China, which, although not much valued by English florists, was, as Mr. John Salter tells us, very highly thought of by the French. In 1850 M. Mieliez of Lille is reported to have distributed some varieties that bloomed in August and later. About the same time M. Lebois and M. Pelé were engaged in the work of raising novelties. In the *Midland Florist* of 1852 it was recorded, "One of the great drawbacks to the enjoyment of these beautiful autumn flowers

has been the late season at which they bloom. We are glad to find that a new variety (originated in Italy) has been introduced, which is very considerably earlier than the Japanese varieties already in cultivation." This seemed to be the beginning of better things, and the name of Henderson was given to it. Subsequently other novelties were introduced, blooming in the month of August. Coming down to more recent times, Mr. Payne paid a well-deserved compliment to the work due to M. L. B. uchardaine, who was responsible for the raising of Mme. C. Desgranges, which variety was discovered by Mr. Robert Parker of Tooting. M. Simon Delaux, he said, deservedly ranks first amongst French growers, who in one year introduced no less than 125 new varieties. Mr. Payne concluded his paper by referring to the work of his own countrymen and colleagues, Messrs. Davis, Jones, Wells, Godfrey, Russell, and others, either as importers or raisers of good things in early-flowering Chrysanthemums.

Mr. E. F. Such dealt with "Early Chrysanthemums for Market," and spoke of the methods followed in his nursery for growing these flowers in a natural manner, and also by a system of disbudbing. He suggested that the ground intended for their reception should be dug two spits deep. The soil should be enriched with a little well-decayed manure, but a too free use of the latter tends to develop coarse and elongated growths. May was the time he suggested for planting, although late April, in a warm and less open position, would answer equally well. He took the Mme. Marie Massé group of plants as ideal representatives of this section, and from the remarks subsequently made by those taking part in the conference, it cannot be denied that this opinion generally holds good. He deprecated too severe disbudbing the plants, as if left to develop in a natural manner they invariably did better. He did not advise watering very much, only in prolonged periods of drought did he think it necessary. He suggested feeding the plants when the buds were well set.

Mr. Morman of Victoria Park, London, E., contributed a paper on "Early Chrysanthemums for Town Gardens," this especially referring to gardens situated in the east of the metropolis. This grower having had considerable experience of these plants, extending over many years, his remarks were listened to with more than ordinary interest. His was a very practical paper, and in following him one could not help feeling that he understood his subject thoroughly. He spoke of the value of these plants when grown in the reserve garden, lifted in the early autumn, and planted in beds from which the summer occupants had been removed. He described the transformation of the beds and borders treated in this manner, saying how glorious and fascinating a display could be created in this way with very little trouble. He spoke of the advantages of massing, and if such delightful results could be obtained in the garden where the environment is so unpleasant, one could not help feeling the great possibilities of the early-flowering Chrysanthemums in more favourable positions.

The evening meeting was presided over by Mr. J. H. Witty, vice-chairman of the executive committee. The audience was not so large as at the afternoon meeting, yet sufficient to prove that the interest was well maintained.

Mr. D. B. Crane dealt with "The Chrysanthemum as a Plant for the Garden," and his long association with the popularising of this plant justified those present in expecting great things of him. The question of improvement in the colours was largely dealt with, and the value of grouping the plants in colonies for colour effects also considered. He spoke of the great advances that had taken place during the last eighteen years, mentioning that 1894 was an epoch-marking year. Introductions from France at this time did much to transform our gardens, and those subsequently introduced each year added additional charm. Special praise was due to the English raisers, who in the last few years had quite eclipsed the efforts of Continental raisers with their delightful gems. Both the Japanese and Pompon sections were dealt with in turn. He deprecated early propagation, the only advantage in so doing being that of producing larger plants. He advocated propagation to begin as the days begin to lengthen, emphasising the fact that a March propagation gave better results than at any other period. He advocated planting out of doors about the third week in May, stating that at this time all danger of severe frosts was over, and cold and cutting winds less likely to be experienced. He deprecated planting in rich soil, stating that that of a moderate richness invariably gave good results.

This paper was followed by one from the pen of Mr. E. F. Hawes of the Royal Botanic Gardens, Regent's Park, who dealt with this subject for town gardens, more particularly those situated in the west. He spoke highly of its value in beautifying gardens during the dull months, and stated that they may be grown in any well-prepared border during the entire year. He emphasised the importance of drainage of wet soil. In naturally dry soils, where the sub-soil consists of gravel or a similar compost, nothing further than good trenching and manuring were required. After flowering, in order to keep the gardens bright and attractive, he makes a point of lifting the plants in their entirety, and transferring them thus to specially reserved beds, by these means protecting the plants during the cold weather, and encouraging them to make fresh growth subsequently, and this of a sturdy character. This able paper proved that the writer understood his subject.

In the absence of Mr. George Gordon, V.M.H., Mr. Charles Curtis, secretary of the conference, read a paper on the "Decorative Value of Early Chrysanthemums." Much was said as to the value of these flowers for decorative uses. From the end of August until October is well advanced we shall see the florists' windows crowded with the blooms, and in the streets the flower-sellers will be

found to have their baskets filled with them. When it is remembered that one street is typical of all the others, it does not require a wide stretch of imagination to grasp the fact that immense quantities of blooms must be brought into the city or town every market day. If I were asked to state in the fewest possible words the special merits of the blooms of early Chrysanthemums, I should say their merits consisted in the distinct and attractive colours they afford, the length of time they retain their freshness when cut, and the facility with which they can be artistically arranged. I might also mention the comparative ease with which abundant supplies may be obtained, even by those who have a limited space only for indulging their taste for plant culture. In the cultivation of these Chrysanthemums for decorative purposes in a cut state, it is not wise to be unduly prejudiced in favour of either naturally-grown or disbudbed flowers. The sprays of small and medium-sized blooms and the single blooms of comparatively large size have each their uses. In the selection of varieties preference should be given to the Japanese section, with distinct colours that appear to advantage under the influence of artificial light, and have blooms with long, stiff, wiry stems. He also paid a well-deserved compliment to the naturally-grown and prettily-coloured Pompons for window-boxes and balconies.

A discussion followed each paper, and much interesting information was forthcoming in consequence.

At the conclusion of each series of papers, a hearty vote of thanks was accorded to the writer of the paper. The chairman of each meeting also received a like reward. A special vote of thanks was accorded to Mr. Curtis for his indefatigable efforts in bringing the conference to such a satisfactory issue, and there is good reason to believe that one result of the reading of these papers will be to increase the popularity of these flowers in the immediate future.

SCOTTISH HORTICULTURAL SOCIETIES.

MONTROSE.—The annual meeting of this society was held on the evening of the 4th inst., Mr. A. McDougall presiding. The report of the secretary and treasurer, Mr. James McDonald, was read, and unanimously approved of. It showed a result which he considered rather unsatisfactory. The income had amounted to £109 7s. 8d., and the expenditure came to £107 19s. 9d., the credit balance thus amounting to only £1 7s. 11d. The office-bearers were elected as follows: President, Provost Melvin; vice-president, Mr. A. McDougall; secretary and treasurer, Mr. James McDonald, with a committee composed, according to the rules, of ten professional and ten amateur gardeners.

DUNDEE.—The annual meeting of this society was held on the evening of the 6th inst., when Mr. J. Smith Ritchie, treasurer, submitted his annual report. This was, unfortunately, of a disappointing nature, the income having amounted to only £1,342 13s. 8d., including the balance of £458 17s. 11d. from the previous year, while the expenditure amounted to £967 9s. 8d., the balance at credit of the society thus being reduced to £375 4s., a loss on the year of £33 13s. 11d. The president, Mr. D. Macdonald, who presided, said that an effort would require to be made to reduce the expenditure, as the funds had become depleted by £163 in two years, and it was decided by the members to reduce the prize-money from £300 to £275.

CROYDON HORTICULTURAL SOCIETY.

ONE of the objects of this society is to lend itself to all enquiries for information respecting horticultural pursuits, and to meet these enquiries one evening in each session is devoted to discussions, whereby the members can ask their neighbours for cultural points on any subject which may have come under their notice. Also if any remedial treatment is sought to counteract failures they have experienced, whether by insect and fungoid pests, or perhaps wrong methods adopted in culture, the medium for obtaining knowledge which a gathering of the profession like this offers is one of the best to profit by. At their rooms recently a discussion night was held, and proved very instructive to those attending. Various enquiries cropped up, and received due attention under their separate headings. The exhibits displayed, although not numerous, were very good, and the thanks of the meeting were conveyed to Mr. F. W. Radford, Southernhurst, South Park Hill Road, whose gardener, Mr. T. Padley, put up three *Odontoglossum grande* in 4½-inch pots. Each plant carried six blooms of beautiful marking and size of flower. Messrs. J. R. Bux and Co., nurserymen, West Croydon, staged a collection of Michaelmas Daisies, comprising twenty-two varieties, all well grown.

THE HORTICULTURAL CLUB.

THE monthly house dinners of this club were resumed at the Hotel Windsor on Tuesday, the 10th inst. The chair at dinner was taken by Mr. Charles E. Pearson, the president of the club, Sir J. D. T. Llewellyn, Bart., arriving in time for the lecture. Despite the handicap of a concurrent dinner of the Gardeners' United Horticultural Benefit Society, the attendance was quite up to the average, and a very interesting lecture entitled "Notes on Trees and Flowers in America," and illustrated by lantern slides, was subsequently given by Mr. R. J. G. Read, one of the club members. Although the bulk of the slides exhibited related rather to the engineering side of Mr. Read's experience than to the botanical or horticultural, which constitutes his hobby, his remarks anent the various plants and trees which appeared in the numerous views gave abundant evidence of keen observation. Starting with a plan of New York city, with its twin rivers, the Hudson and East River, a series of following slides gave a vivid idea of the immense traffic thereon and of those extraordinary structures known as "skyscrapers," which have

been evolved by an environment of limited space, high ground rents, and need for great and concentrated business accommodation. A view of Broadway, with the sewer pipes temporarily suspended in the air to facilitate the construction of new subterranean roadways, afforded a characteristic glimpse of American cuteness in overcoming difficulties, while a fine view of the celebrated "Flat iron" building inspired the hope in all aesthetic minds that London may long be spared from the outcome of such soaring architectural *tours de force*. Some views of the Central Park led us back to Nature by examples of natural rock outcroppings clothed with beautiful vegetation and artificialised as little as possible compatible with well-kept paths and approaches. Leaving New York and ascending the Hudson River, some grand views were shown, affording an agreeable contrast in the shape of rugged cliffs and wooded heights to the crowded city streets and bare architectural cliffs previously shown. A series of views of Niagara appropriately followed, including views of some of the immense engineering works devoted to the utilisation of the water power for mankind's benefit. Similar work was also displayed in connexion with other great falls in Canada, in which connexion it is devoutly to be hoped that the love of the magnificently picturesque may not eventually be entirely subjected to utilitarian plans. Views of Chicago and of the St. Louis Exhibition followed, in the latter of which, unfortunately, the horticultural department was so far away in the background as to give no idea of its extent; the general effect, however, was most imposing. The views embraced a number of the most remarkable bridges in the States and in Canada, and a view of the St. Louis Botanical Gardens, showing a very fine specimen of the Victoria Regia Lily growing in a tank in the open, which, with the presence of humming birds in the vicinity as seen by Mr. Read, points to a warmer climate than we should have anticipated in that latitude. A hearty vote of thanks to the lecturer concluded the meeting. The chairman announced that the after-dinner speaker on the next occasion, November 7, will be Canon Horsley, on "The Influence of Flowers Amongst the Poor."

THE UNITED HORTICULTURAL BENEFIT AND PROVIDENT SOCIETY'S ANNUAL DINNER.

THIS, which was held at the Holborn Restaurant on the 10th inst., was of more than usual interest, Mr. W. Marshall, who occupied the chair, being practically the originator of the society. He was supported by Mr. H. B. May, Mr. W. A. Binley, Mr. C. E. Osman, Mr. E. A. Bunyard, Mr. G. J. Ingram, Mr. P. Veitch, and others.

After the usual loyal toasts had been proposed, the chairman proposed "Success to the Society," and in doing so referred to some interesting facts connected with its early history. It was mentioned that the original object was to form a society in opposition to the Royal Horticultural Society, who had caused the committees to resign through arrangements which were not considered suitable. However, the council made concessions which were satisfactory, yet those who started our society held together. In its earlier days some flower and fruit shows were held for the purpose of raising funds, but even in those days the shows were not always a financial success, and it was chiefly through the guidance of Mr. Marshall that a loss was averted. Another society had been promised the use of the Guildhall at the same time. After some discussion it was agreed to amalgamate, and Mr. Marshall had some difficulty in getting his committee to accept a definite sum.

Mr. Marshall alluded to the satisfactory financial condition of the society at the present time and the increased membership, the additions this year already being over 100, and making up a total of 1,200. The invested funds were £24,000, but this had since been made up to £27,063.

Mr. Marshall expressed his great satisfaction in finding the society so prosperous, and said he could find no fault with the present officers and committee of management. The society was founded in the year 1865, but it was not until recent years that its value to gardeners was recognised, and even now there are many who fail to avail themselves of its advantages. Mr. Charles H. Curtis, chairman of committees, responded, and in doing so read a letter from Mr. Baker, Memblands Gardens, Plymouth, who is one of the oldest members. In his letter Mr. Baker referred to the great help given to the society by the chairman. The honorary and life members was proposed by Mr. W. Taylor, and in response Mr. Binley made a humorous speech. Mr. E. A. Bunyard made a brief but amusing speech in response.

The toast of "The Chairman" was proposed by Mr. H. Binley, who spoke in warm terms of the friendship which had existed for about twenty years, and the toast was most enthusiastically received by all present. Mr. J. Hudson proposed the health of the visitors, and Mr. G. Gordon and Mr. Strugnell responded. "The Press" was proposed by Mr. E. F. Hawes, who referred to the value of the assistance given by the Press, and Mr. E. Hooper Pearson of the *Gardeners' Chronicle* responded.

The Kew Glee Singers contributed much to the evening's enjoyment, and Mr. Alex. Marshall's (son of the chairman) rendering of "The Death of Nelson" was much appreciated. Altogether a lively and enjoyable evening was spent. The attendance was not quite so large as might have been expected, but the Horticultural Club dinner and other engagements prevented many from attending. There were about 110 present. Among the new honorary members, Mr. F. W. Moore of Glasnevin, Dublin, joined at a life member.

* * The Yearly Subscription to THE GARDEN is: Inland, 6s. 6d.; Foreign, 8s. 9d.

THE GARDEN.

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OCTOBER 28, 1905.

FIGS AGAINST WALLS.

It is only in a few gardens that we find the Fig really fruitful; indeed, we may say rarely, wherever its cultivation in the open is followed. Certainly it is not everyone who has a liking for the fruit; therefore trees are not planted generally, but few fruits are more luscious when fully matured. In favoured localities on the south coast, especially in the Worthing district, trees growing in the open, both bush and standard, seldom fail to bear a crop. Many of the trees are of great age and size, but these produce the heaviest crops, though the individual fruit may not be quite so large as those from younger trees. This is easily accounted for. The old trees make very little wood, and this, being very short-jointed, has a better chance of becoming thoroughly matured in autumn. Properly-matured wood is most important with all fruit trees, but especially so with the Fig. Another point, perhaps, that assists old trees or those not growing in a deep, rich soil is that the foliage is much smaller than on young and vigorous ones, and it is noticed that the leaves turn yellow and fall earlier than on the latter, while during summer the wood is more exposed to the sun than when the leaves are very large. That the Fig delights in hot, dry weather was most noticeable during those seasons of drought a few years ago. When it was not possible to water them—indeed, water was too scarce very often to do so—very large trees appeared to revel in the heat and dryness, and the same heavy crops appeared for several seasons until a dull, wet autumn set in, when the fruit the following season was very scarce.

There is always something interesting in a Fig tree in the garden, especially when under proper treatment it is made fruitful. Those who have not been successful in this may not have been quite right in the treatment given. A restricted root-run is necessary where the soil is naturally good, therefore frequent attention should be paid to the roots in keeping them within bounds. It is surprising how well the Fig thrives in a very narrow border where the roots are confined, or on very shallow soil overlying chalk or gravel. No matter how small or poor the rooting medium may prove, the trees can be maintained in the highest state of fertility

by using a rich compost round the stems. The latter, of course, is withheld during a wet season, when growth generally is too gross. Trees growing under such conditions are kept well in hand, as each season the previous mulching can be forked away, replacing it with fresh, which answers the purpose better than adding to the old, and thus eventually forming a rich and extended border. Moreover, trees whose roots are cramped for want of room and natural food can always be assisted when a crop of fruit is swelling by several soakings of manure water, or about July a thickness of cow manure may be packed round the stems, and followed by a good watering. The Fig readily emits fine feeding roots from the old stem when a portion of this is covered with good compost or manure; therefore the grower can always produce plenty of roots in this way, which is not possible or practical with other fruit trees. Old mortar, fresh lumpy loam, and cow manure form the best mulching for the Fig to root into.

Having thus mastered the proper management of the roots, top growth requires equal attention. This also should be restricted, as vigorous shoots 18 inches or more in length never ripen properly, therefore fail to produce fruit; indeed, the tips of the latter are so green and soft that only a few degrees of frost are necessary to kill them back several inches. Unless it is required to fill in a gap or extend a small tree, early stopping of the shoots should be followed. This is generally done at the third or fourth leaf. The shoots so operated upon commence to thicken and harden at once, and early maturity is thus ensured.

When the size of a Fig leaf is taken into consideration, it should show how necessary it is to keep the shoots thinly disposed, especially with trees trained to walls. This is frequently overlooked when the bare branches are being nailed to the brickwork. A mass of such large leaves overlapping each other form a dense shade to both fruit and the young wood, proving detrimental to each. The different shoots should be so arranged that there would be little difficulty in finding the fruit, although, of course, it never stands out so prominently as the Peach, Nectarine, or Apricot.

Although we have said that Fig trees revel in heat and drought, we had in our mind

trees growing in the open; but when situated against a hot wall several soakings during the season are necessary, while after very hot days the foliage is greatly refreshed and kept free from red spider by syringing in the cool of the evening. We have found Brunswick and Black Ischia most suitable for bushes and standards, and the well-known Brown Turkey for walls.

THE PLANTING SEASON.

ONCE more the time of year for the planting of new and the renovating of old shrubberies and woodlands has come round, and, on the whole, the ground is in a very favourable condition for planting. The rains of early September made the ground moist, and a fair amount of sunshine during the year has warmed the soil, so that the chances of plants doing well if moved this autumn are distinctly good, a warm, moist soil being very favourable to the production of new roots. There is a difference of opinion at times as to the respective merits of autumn or spring planting, but, all things considered, the autumn is the better time, provided the work is done at the earliest opportunity, so that the plants get the full benefit of the warm soil. The exact time to plant depends upon the nature of the season, and it is impossible to give any particular date as to when trees and shrubs can be transplanted; generally speaking, the last week in September is the earliest time the work can be commenced. As soon as growth is ripe, and the ground fairly moist, planting can be done, but these conditions vary not only from year to year, but also in different localities in the same season.

The first plants that can be moved are Rhododendrons, and if the weather is showery these can be transplanted in the middle of September with safety, provided the growths are ripe, which they usually are. May is often recommended as the proper time to move Hollies or other plants that dislike being disturbed, but they do much better if transplanted in early October. May is a good time if the weather is favourable, but during that month we often experience cold, drying winds and a lack of rain, which are distinctly unfavourable to the successful transplanting of any subject, and more particularly so to choice evergreens. In speaking of early autumn planting I am referring to evergreens, as it is usually the end of October or even November before deciduous plants can be moved, as they must be left until the leaves have nearly, or quite, fallen. They transplant best, however, when the leaves have turned yellow, but have not fallen off. The ripening process of the leaves still

continues after removal, and they drop off naturally. It sometimes happens that a deciduous plant has to be moved before it has ripened its leaves, which afterwards wither and look dead all the winter, even though the plant itself is uninjured. When such is the case, the leaves can be stripped or cut off, taking care to leave an inch or so of the leaf-stalk to protect the young buds.

A great deal of the success in transplanting trees and shrubs depends upon the manner in which the work is done, as the rule that "what is worth doing at all is worth doing well" is particularly applicable to planting. In digging holes they should be made large enough to allow the roots to run for a year or two before they reach the harder, unbroken ground around them; and manure should also be kept some little distance away from the roots, as to many plants it is absolutely poisonous if applied directly to the roots. Coniferous plants are better without manure, but a little peat or good leaf-mould may be given them with advantage. Finally, care should be taken to stake any plant that requires it, as a tree that is being rocked by the wind cannot make new roots.

Bagshot, Surrey.

J. CLARK.

COLOURED PLATE.

PLATE 1285.

SOME NEW WALLFLOWERS.

THE Wallflower is indispensable in the small and the large garden alike. It is so freely used in spring gardening that the introduction of several beautiful new varieties by Messrs. Sutton and Sons, Reading, cannot fail to be heartily welcomed. Thanks in a great measure to the work of Messrs. Sutton and Sons, there is now a considerable variety of colouring among the Wallflower, and this makes it of more value in the garden. The colour of the flowers now ranges through yellow, red, brown, purple, and many other intermediate shades, some of them most attractive. Some of the sorts with self-descriptive names are Blood Red, Purple, Cloth of Gold, Yellow, and Purple Queen; other good ones are Eastern Queen, apricot colour; Faerie Queen, lemon; Phoenix, an early race of the old blood red Wallflower; Sutton's Giant, large yellow and brown; Earliest of All, yellow; and Sutton's Improved Double German, that includes many beautiful colours that are not to be had from ordinary seed. The coloured plate of Wallflowers given with this issue was made from flowers sent by Messrs. Sutton and Sons, Reading.

THE EDITOR'S TABLE.

Mr. Anthony Waterer, The Nurseries, Knapp Hill, Woking, sends many shrubs of interest either for the beauty of their fruit or leaf colouring. They are as follows:

Spindle Tree (*Euonymus europæus*).—The shoots clustered with the rosy carmine fruit of exceptional size were very fine. We never recollect having seen such masses of berries, and the trees from which they were cut must have been a wonderful colour picture at this time of year. The Spindle Tree is the brightest spot in many an English hedgerow at the present time, and our gardens would gain much if it were brought more into prominence. To obtain the richest

abundance of berries it should be treated as in Lord Aldenham's interesting gardens at Elstree, cut down in the spring when it gets at all leggy and bare below.

Ilex verticillata.—This is one of the deciduous Hollies too seldom seen, with a profusion of sealing-wax coloured berries, which cluster thickly on the shoots. It is a shrub to note for its brilliant autumn and early winter effect.

Andromeda arborea.—Few shrubs are more beautiful for their leaf colouring than this, a warm crimson glow which makes the *Andromeda* of the greatest value for grouping.

Parrotia persica.—This is a dwarf tree from Persia, which is always attractive in autumn, as its leaves change to brilliant hues, crimson mingled with yellow and other shades. This colouring is most pronounced when the trees are in a light, warm soil.

Cotoneaster frigida.—This is one of the most useful of the smaller trees for gardens, and our experience is that it is almost as happy in the town garden as in the country. Its berries are bright red, and the growth is very strong.

Caryopteris Mastacanthus.—A bunch of flowering shoots of this pretty Chilean shrub reminded us of its autumn value. The lavender-blue colouring is soft and unusual, and when the shrub is in full bloom it is as beautiful as anything in the garden during October. Although frequently recommended only for quite southern gardens, the flowers from Mr. Waterer show how well it succeeds in Surrey.

APPLE PEASGOOD'S NONSUCH.

I am sending for your table four Peasgood's Nonsuch Apples which I gathered from an espalier tree in these gardens, which was planted only three years ago. I had twenty fruits from the tree this year, and six of the largest weighed 8lb. Last year I only had eight fruits, and the largest weighed 2lb.—G. W. KING, gardener to Mrs. Robinson, Milton Ernest Hall, Bedford.

[The fruits sent were exceptionally fine examples of this valuable Apple.—Ed.]

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

October 31.—Southampton Horticultural Show (two days).

November 1.—National Chrysanthemum Society's Show at the Crystal Palace (three days).

November 7.—Royal Horticultural Society's Meeting. Lecture by Dr. J. A. Voelcker, M.A., on "Chemistry in Relation to Horticulture"; Birmingham Chrysanthemum Show (three days); Belfast Chrysanthemum Society's Show (two days); Croydon, Brighton, and Ipswich Chrysanthemum Shows (each two days).

November 8.—Stoke Newington and Cardiff Chrysanthemum Shows (each two days); Bath Gardeners' Debating Society's Show (two days).

November 10.—Huddersfield and District Chrysanthemum Show (two days); Sheffield Chrysanthemum Show (two days); Bush Hill Park Chrysanthemum Show (two days).

November 14.—South Shields and Northern Counties Chrysanthemum Show (two days).

National Sweet Pea Society.—The first provincial exhibition of the National Sweet Pea Society will be held on Friday, July 20, 1906, at Ulverston. The honorary secretaries of the North Lonsdale Rose Society are assisting Mr. H. J. Wright in the secretarial duties. We are glad to see that the committee has taken steps to prevent the recurrence of such a matter as happened at the exhibition in July last, when many of the best exhibits in one of the principal classes were disqualified owing to the exhibitors having put up in some of the vases one flowering spray above a certain specified number. The committee now suggest that an ideal bunch of

Sweet Peas consists of twenty sprays, and that the judges will be instructed to regard overcrowding as a fault. Thus if an exhibitor should use either nineteen or twenty-one flower sprays disqualification will result.

Flowers in Kensington Gardens.

I was agreeably surprised on a recent walk (14th inst.) through the long and well-known Flower Walk here to note how gay with flowers it was looking, considering the late period of the year, and that frost had already paid us some unwelcome visits. I noted some good plantings of *Chrysanthemums*. Mme. Marie Masse is a fine lilac-mauve. Bronze Marie Masse is another good flower, colour indicated by its name. Piercy's Seedling is a glowing yellow, as is Countess Lowndes, white. Good whites were noted in La Nympe and M. Grunnerwald. The Starworts (*Michaelmas Daisies*) were making a brave display. *Calceolarias*, too, gave quite a warmth of colour. White *Nicotianas* were still in profusion. Variegated *Veronicas* among scarlet tuberous *Begonias* made a happy association; in fact, *Begonias* at various points were very gay. Some standard *Fuchsias* still in flower attracted well-deserved notice. A good strain of *Celosia pyramidalis* is grown here, and white *Phloxes* gave interest and beauty to the surroundings.—Quo.

National Rose Society's provincial show.

—The decision of the executive of the National Rose Society as to the town to be chosen for its northern provincial exhibition is being eagerly anticipated in Ulverston, as though unsuccessful last year in its application, the North Lonsdale Rose Society is more hopeful for 1906, as the two shows held in London, and the one in Gloucester this year, did not give the northern members much chance of competition. Ulverston welcomed the northern provincial show in 1896 and in 1901, and the respective receipts at the gate were £113 2s. 4d. and £142 7s. 8d. Ulverston, by virtue of being the junction for the Lake District and within easy sea voyage of Blackpool and Morecambe, at once becomes an ideal centre for a national show, and being on the borders of Yorkshire, Westmoreland, and Cumberland, Northern Counties growers have easy access to it. Most people think Ulverston is in Cumberland; it certainly is a peculiarly situated piece of Lancashire that claims it, as Westmoreland must actually be passed through to get to it from the south. Railway facilities, too, are excellent, as the main line to Scotland passes within twenty miles of it.—G. H. MACKERETH, Hon. Secretary North Lonsdale Rose Society.

Vanda cœrulea.—The Burmese variety of this beautiful blue Orchid is generally found in the Shan States of Upper Burma, at a height of from 4,000 feet to 6,000 feet, growing chiefly on Oak trees. The forests are not as a rule very dense, hence the plants get a fair amount of sunshine during the day, especially when we consider that in Burma there is about four times as much sunshine as in Britain. During the night the plants get drenched with heavy dews. The rains last from about April until October; even in December occasionally heavy showers of rain fall. The rainfall in Upper Burma will be from 20 inches to 30 inches a year; quite in contrast to Lower Burma and Moulmein, where from 180 inches to 220 inches fall in a season of five months, and 65 inches has been known to fall in the month of August alone. The dry season is generally sharply defined, and everything gets very dry from the end of November to the end of February. The nights are usually very cold, and hoar frost is of almost daily occurrence. During the day there is always bright sunshine, and the thermometer usually rises to 60° or 70° Fahr. When the night frosts cease there is generally a heavy fall of dew, which seems to keep the Orchids, even during the height of the dry season, when most of the trees have lost their leaves, in a bright green and flourishing condition.—ARGUTUS.



VARIETIES OF WALLFLOWER.

Kent and Sussex Daffodil and Spring Flower Society.—The schedule of prizes and rules for 1906 have been published, and may be had from Mr. F. Herbert Chapman, 107, High Street, Rye, Sussex, who is hon. secretary. The first annual exhibition will be held about the second week in April, 1906, at Tunbridge Wells. The definite date and place will be announced within a reasonable time before the exhibition.

Cotoneaster frigida.—Of the stronger-growing Cotoneasters this is at the present time the most ornamental. It branches are heavily weighted with large clusters of deep red berries, each the size of a large Pea. The fruit of other species is as ornamental—that of *C. rotundifolia*, for instance—but none is at once so vigorous in growth, so fine in its foliage, and so imposing as this. It can be made to assume the shape of a medium-sized tree by keeping it to a single stem when young. In the charming Botanic Gardens at Bath there is the finest specimen I have seen in England. It is a tree with a rounded head of branches borne on a clean trunk, which (speaking from memory) is about 1 foot in diameter and 6 feet or so high. But grown as a specimen shrub on a lawn it is also very striking, forming a bush 20 feet to 30 feet in diameter. Most Cotoneasters thrive in any soil of moderate quality, and *C. frigida* is no exception to the rule.—W. J. BEAN.

Senecio clivorum.—This novelty is not only interesting, but also of value as an ornamental plant. Like many of our newly-introduced plants, it is a native of Central China. It has only been introduced within the last year or two, but still it is already to be seen in many gardens. Being hardy, it may be grown in the herbaceous border, where it makes a suitable companion to the beautiful *Senecio pulcher*. *Senecio clivorum* is much coarser in growth than the latter, and also differs greatly in its flowers. However, both species bloom in late summer, and it is only within recent days that the last flower-heads decayed. *Senecio clivorum* is really a very coarse-growing species; a good plant would attain 5 feet in height and as much across at the base. It does not seem particular as to what soil it should be grown in, but a good deep loam suits it admirably. Although it has been recommended as a plant for the herbaceous border, yet it might be found too large for a small border; in fact, it is quite in its proper surroundings when planted in isolated clumps, preferably near water. The flower-heads are very attractive and profusely borne; the ray florets, which present a somewhat ragged appearance, are of a beautiful golden yellow, contrasting with the dark inner florets. Seed may be obtained of this new species; it may also be propagated by division.—HERBERT COWLEY, *Wantage, Berks.*

Lilium Henryi in New Zealand.—Those of your readers who are interested in *Liliums* may be glad to have the measurements of a clump of this Lily which I lifted in June last. The three bulbs, originally planted some five years ago, had never been disturbed, and had flowered every year. The height of the tallest of the flower-stems, of which there have been five or six every year for the last three years, was from 6 feet to 7 feet, and the number of flowers on such a stem from twenty-eight to thirty-two approximately. One bulb of the largest pair—just separated—weighed 4lb. 2oz., and had a circumference at the widest part of 21 inches. This bulb had had two flower-stems, and the weight was taken after these and the stem-roots were cut off close to the apex of the bulb. The second bulb of this pair weighed 3lb. 6oz. A second pair of bulbs, not separated but ready to separate, weighed together 4lb. 3oz. Another bulb weighed 1lb. 14½oz. In addition there were many smaller bulbs in the clump, though I think a good number of these were seedlings. This is a Lily I find easy to raise from seed. I do not

know whether such measurements as these are unusual in England. Here in New Zealand this Lily has not been cultivated much. I entertain no doubt that these same bulbs have flowered for years.—C. H. TREADWELL, *Ardwick, Lower Hutt, New Zealand, August 12, 1905.*

Barr's bulb trowel.—I have found this tool extremely useful this autumn for planting various bulbs, and can thoroughly recommend it. As a rule, trowels have a knack of breaking off at the handle. This is very strong, and would not break unless very roughly used. I like the shape of the blade immensely, but the tool would be still easier to use if it had a slightly longer handle.—A. R. G.

The Milan International Exhibition, 1906.—We have been requested by Mr. Arthur Serena, Hon. Executive Commissioner for Great Britain at the Milan Exhibition of 1906, to state that H.M. the King of Italy will offer prizes to the extent of £1,600 to exhibitors. This amount will be divided as follows: (1) A prize of £200 for automatic safety couplings for railway rolling stock. (2) A prize of £200 for the best method of testing high voltage electric currents without danger to the operator. (3) A prize of £400 for the best and most original exhibit of machinery or manufacturing process. (4) A prize of £200 for the best established method of distributing healthy and pure milk in centres of population. (5) A prize of £400 for the best type of popular dwelling adapted to the climate of Northern Italy. (6) A prize of £200 for motor-boats. In addition to the foregoing there will be given a national prize of £200 to the public institution or private society which during the last ten years has been most successful in the work of reclaiming waste lands in mountainous districts, and in the improvement of pasturage. These special inducements to exhibiting will doubtless possess attraction for British manufacturers, inventors, and others who should without loss of time address themselves for further particulars to the Hon. Executive Commissioner of the British Section, 1 and 2, Oxford Court, Cannon Street, London, E.C.

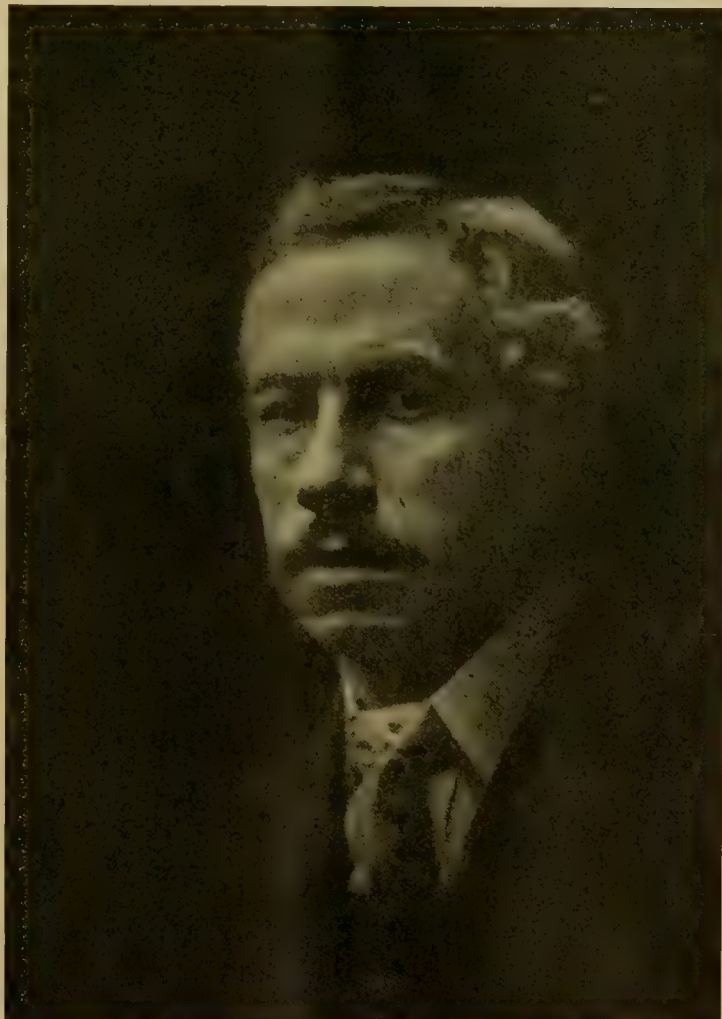
Ceanothus

Indigo.—The garden varieties of *Ceanothus* are now becoming quite numerous, chiefly through the labours of French hybridists. They now range in colour from almost white and pale blue to pink and dark blue. A selection of them is certainly worth growing for the sake of their long season of flowering and the late season at which they continue to blossom. One of the best and most distinct of the

newer varieties is the one named Indigo. It was, I believe, raised and put into commerce by M. Leon Chenault of Orleans. It is rather slow-growing, and is shorter and stiffer in growth than those varieties of the Gloire de Versailles type. This, however, is, if anything, to its advantage. So far as I have seen, its flowers are of a deeper blue than any of these hybrids, and they are borne in dense conical racemes about 3 inches long. Even now, in the second week of October, a bed of it at Kew is quite full of flower. It is not only quite distinct in colour from any other hardy shrub in flower during September and October, but it is also one of the most ornamental.—W. J. BEAN.

THE LATE H. G. MOON.

THE funeral of the late Mr. H. G. Moon, the artist, took place at St. Albans, and was largely attended. There was abundant evidence of the deep respect and affection in which Moon was held when the remains were laid to rest in the cemetery. All along the route, from the house of Mr. Sander, where he passed away, blinds were drawn and a large number of people assembled. Among those who followed, besides Mrs. Moon, her sons, and the brothers and sister of the deceased, were Messrs. F. Sander, C. F. Sander, F. K. Sander, and L. L. Sander, Mr. Walter Rowe, Mr. W. Robinson, Mr. Champion Jones, and Mr. W. Watson. Between thirty and forty of the employés of Messrs. Sander and Sons also



THE LATE MR. H. G. MOON.

followed. There were numerous beautiful floral tributes. Among the latter were those sent by Mrs. Moon, her children, brother and sister, Mr. and Mrs. Sander and family, the employes of Messrs. Sander and Sons (St. Albans and Bruges), Baron Sir Henry Schröder, Bart., Mr. F. W. Burbidge, Mr. and Mrs. Paul, Mr. and Mrs. Godseff and family, Mr. and Mrs. Icton, and THE GARDEN.

THE FLOWER GARDEN.

THE FLOWER BORDERS AT BALHOLMIE, CARGILL, N.B.

BALHOLMIE, the residence of Mr. E. Moon, is a comparatively new place, situated upon the rising ground forming the eastern slope of the River Tay, which flows about 100 feet below. The view from the terrace is magnificent. As one looks south-west the river is seen winding its

biennial, and herbaceous plants, the upper border with rather tall varieties, growing about 2½ feet to 3 feet, and the lower side with dwarfer subjects. This plan gives endless scope for massing and blending of colours, at the same time making with the variety of plants and great wealth of bloom a most interesting study to lovers of outdoor flowers. The effect from the end of the walk is gorgeous, but one is induced to go forward and examine it to see what the various groups are composed of.

Perhaps one of the most striking panels was composed of *Lobelia cardinalis*, the vivid scarlet of its flowers and dark foliage being thrown into relief by a groundwork of variegated *Alyssum*. Another pretty and novel panel was composed of *Nemesia strumosa* Suttonii, with a groundwork of Fern-leaved Parsley, the latter acting as a support as well as supplying foliage which the *Nemesia* lacks. Another border was divided into triangles by *Chrysanthemums*,

constant show of bloom. Mr. Miller, the gardener, is to be congratulated upon the successful way in which he has carried out the work. A. W. BROWN.

TREE CARNATIONS IN THE BORDER.

THOSE who require a constant supply of Carnation flowers should try some of the tree varieties, planted in the open border. The last three or four years, after the plants have done their winter blooming in pots, we have hardened them off, and as soon as the weather was favourable in April we planted them out about 2 feet apart. Take care that they are thoroughly moist when planted, and give a good soaking to settle them in. Should the weather keep dry they must be watered when necessary, for once the balls of soil get dry it is a difficult matter to get them soaked again. A good damping overhead with a rose can night and morning in dry weather is very beneficial. As soon as the roots begin to move in the fresh soil the plants will grow quickly and produce flowers in abundance.

If the plants are disbudded some fine flowers will result. They will follow the border varieties, and keep on flowering until the frosts come. A dressing of horse manure is a capital thing in hot weather to prevent evaporation. An occasional spraying over with XL All or some other suitable insecticide will help to keep off thrips. These are a great pest to Carnations; they not only stunt the growths, but also disfigure the flowers. Our plants are turned out of 7-inch pots, and the varieties are Mrs. Leopold de Rothschild, Mme. Melba, New York, Wm. Robinson, and others. They will also give splendid cuttings in the autumn. No doubt the planting out puts fresh vigour into the plants. W. S. HURLSTON.

Hallow, Worcester.

DAFFODILS IN MEADOW AND LAWNS.

(Continued from page 255.)

THE common native Daffodil and its Welsh and Scottish forms should be largely used in half-wild places, so also Irish princeps and the sturdy and shapely Tenby Daffodil. John Horsefield, Emperor, Empress, Grandee, and, in fact, any garden Daffodils that are too abundant should be tried.

It is best to plant separate groups all of one kind rather than to plant mixtures which produce a bizarre or spotty effect. Although groups of each kind should be separate, groups of two or more kinds may be planted close together, so that one may continue flowering after the other is past its best. Golden Spur, Santa Maria, Ard Righ, Countess of Annesley, all the bicolor varieties, and many other kinds that increase too fast in the garden beds or borders may be turned out to grass with advantage. The best time for digging bulbs and replanting on grass is July and August, especially for the poeticus varieties and other early-rooting kinds. Of course, it is a busy season in gardens generally, and late planting is often done, not because it is either right or best, but for convenience sake. By the judicious planting of the large-trunked



FLOWER BORDERS AT BALHOLMIE, CARGILL, N.B.

way between high, wooded banks, the distant hills forming a fitting background to one of the finest views in Perthshire. The gardens are formed on the slope a little to the north of the house, and here everything has been done to make them beautiful and attractive, taste in arrangement is evident everywhere. One is at once struck with the magnificent show of bloom in the flower borders. For general effect and composition they are quite unlike anything else in the district.

When visiting gardens one gets tired of seeing the same endless arrangement of long lines of Stocks, Asters, Geraniums, *Lobelia*, &c, with the never-failing background of Dahlias and *Chrysanthemums*. The idea Mr. Moon carries out is quite distinct from this. The borders are divided into square and triangular beds filled with annual,

with a line of Hollyhocks as a background. Here *Antirrhinums* and *Phloxes* made bold and attractive masses, as also did *Anemone japonica rosea* and *alba*.

Around the sundial, which marks the point where the borders cross, a distinctly fine effect was got by groups of the new *Nicotiana Sanderæ*, composed of some of the finest plants I have seen anywhere. Individually they were 6 feet high and 4 feet through. This plant has been much criticised, but there is no doubt that used in a proper way, with due regard to surroundings, it will take its place as one of the finest of our annuals.

Other panels were composed of such widely different plants as Larkspurs, *Montbretias*, *Petunias*, *Candytufts*, *Gaillardias*, *Violas*, *Eschscholtzias*, *Alonsoas*, *Viscaria cardinalis*, and *Marguerites*, the great variety giving a

Daffodils, the many forms of the *Star Narcissi*, such as *Incomparabilis*, *Barrii*, *Burbidgei*, *Leedsii*, &c., and the early and late-flowering forms of *poeticus*, a season of blossoming is assured that lasts from March until the end of April, when the late-flowering Tulips succeed them in all their glory.

Even the beautiful white Daffodils often live and thrive on grass in half-shade when they fail after a year or two of cultivation on bare earth in beds or borders. In both England and Ireland strong and healthy stocks of the white kinds have existed for generation after generation on grassy slopes and in sheltered hollows amongst the roots of Nut bushes or of deciduous shrubs and trees. All the rich yellow Rush-leaved hybrids of the *N. odoros* group are distinct and effective on moist lawns, and the same is true of the sulphur Daffodils from the Pyrenees, such as *N. variformis* and the Spanish hybrid Queen of Spain. A glance at one or two of the many bulb lists now being published by English growers, or those from Ireland, Holland, and elsewhere, will show how great and varied is the diversity of these graceful flowers of spring. Wherever the soil is deep, rich, and holds sufficient moisture, not alone the old and well-tried kinds, but even the choice seedlings succeed well on the grass, often seeding thereon freely when they fail to do so in the beds and borders of the garden proper. Then, again, there is but little or no fear of their ever dying out, as they are apt to do on light and dry bare soil. At Straffan, in County Kildare, several kinds seed and hybridise freely on the cool, moist, grassy lawns, and groups of self-sown Daffodils and Snowdrops appear like tufts of young Onions year after year; in fact, the grass is often a sanctuary for bulbs of many kinds, and it is good economy to experiment with a few off-sets of all the good kinds as opportunity occurs. At the same time, we must never forget that many, even if not all, of the finer sorts or florist's varieties are really not more effective on the grass than are the best of the more abundant or older kinds. The finest of the red cups, for example, soon bleach or burn and fade if fully exposed to sun and winds. Their nodding habit leads to the backs of the flowers being more in evidence than the cups, and so kinds like *Stella* and *Barrii* conspicuous are practically as effective as seen growing as are sorts like *Lulworth* or *Lucifer*. Another practical point in favour of growing these flowers on grass is that their blooms keep cleaner and last much longer in beauty than they do when grown on bare earth, and flowers can be cut in large quantities without their being missed, as happens on the beds and borders of the enclosed garden. As to the actual planting of bulbs, it really matters but little provided the soil is deep and capable of holding sufficient moisture. If soils are sandy or dry on a porous subsoil of gravel, then plant in half shade, but on hearty loamy soils, with plenty of moisture from October till June, *Narcissi* do well in full sunshine. If labour is no object, the turf may be skimmed off and laid aside while the soil is dug and the bulbs are planted at a depth of 3 inches to 5 inches.

On good soils, however, notch planting is as successful as any other way, and, of course, more expeditious. A sloping spade cut is made, and then the turf and soil are levered up together by a man while a boy places the bulbs in the cleft so made, and the turf is

trodden down firmly over them. It really does not matter much if the bulbs are laid in on their sides, as the growth rights itself, as also do the off-sets when they are made from the parent bulbs. Daffodils often charm us most when they spring up in unexpected places, and show best near the dark trunks of trees that form a background to their flowers. Clumps that are seen on the banks of rivers or streams, or even along the sides of lakes and ponds, also show well, especially as reflected in the water on still days. Groups that are only partly seen through the dark stems and branches of deciduous and evergreen trees are also very effective, on the principle that "half a thing is sometimes more beautiful than the whole." In any case arrange the grouping so that there are wide breadths of grass to serve as a foil to the groups, and remember that there should be a thicker patch of bulbs in every group for the eye to rest upon. When the grouping is seen from the house or other particular standpoint, the groups may be so planted in size and density as to aid the natural perspective. The nearest and larger groups, for example, may be planted thickly with bold, tall-growing, and large-flowered kinds, and the receding groups so arranged and planted as to look smaller and less imposing in height as they recede into the distance. As a matter of fact, however, there is practically no limit to the manner in which bulbs may be planted on the grass. The grass is really the canvas and the bulbs represent the colours on the palette, and the real art consists in the natural manner of grouping and the harmonious arrangement of the colours, an art that is naturally felt by the few only and cannot be readily explained. Of one thing those who plant bulbs on grass overlying good soils may rest assured, and that is that Daffodils look better and live longer as so treated, a fact proved over and over again all over the British Islands during recent years. F. W. BURBIDGE, V.M.H.

THE ANNALS OF THE LITTLE RED HOUSE.

IX.—THE MAKING OF THE BORDER.

I SHOULD like the readers of these little annals to understand that they are not written for those who have large gardens and a dozen gardeners to do their behests, but for those flower-lovers who, like ourselves, have a small place for their hours of recreation in which they work themselves, and whose means will not allow them to expend money on rare and delicate plants, but rather pin their faith on the beautiful, if old-fashioned, cottage favourites for their gatherings. It is for this reason that my list is limited, but it is long enough to provide a delightful succession of colour and sweetness.

I have found, too, that with few workers it is better to forego plants and bulbs that require lifting and putting away each autumn, so if you live in a rigorous climate you will again be somewhat limited in your choice; but a great deal can be done by protecting, by mulching and covering the graves of the buried treasures with wood ashes or Bracken; indeed, most things can be so preserved, except in the far North, where you have to contend against long continued and severe

frosts. The only exception I make to this rule is with regard to Cannas. These are so handsome and effective both in flower and foliage we cannot forego them. I believe they can be induced to survive a winter out of doors, but they make much stronger growth when lifted. The *Gladiolus*, too, is a touchy subject, and if left in the ground a percentage seem to perish. The sweet-scented *Verbenas* need never be moved if they are planted under a south wall; indeed, they do far better for being left out. One thing, however, you must be particular about. The plants must never be cut down to the ground or the damp will run into the hollow stems and decay the roots. Merely cut off the tops and tie them up in an old sack or swathe them in straw or Heather. I never use coal ashes as a protection, for I find that many plants dislike them.

The Cannas are best treated by the methods the French gardeners employ, and they grow any number of these fine plants. In October they are lifted and the blackened stalks cut close to their roots. If wet they are allowed to dry a little; they are then stowed away in a frost-proof shed in sand. At the end of April they are looked over, and any decayed portions of the tubers cut out. They are then divided and potted up, and placed in a cool frame until such time as it is considered safe to put them out in the borders.

The *Montbretias* are not lifted, but when they form large rank clumps, as they often do in rich soil, they must be divided, or they will not continue to flower well. The *Montbretias* will not bear being kept out of the ground for any length of time. We never move the Tulips, or indeed any of the other bulbs or tubers.

I now give a list of the most useful herbaceous plants for a small border with, as far as possible, a constant succession of flowers.

When we made our border we planted at the back alternately various *Phloxes*, *Michaelmas Daisies*—the more delicate kinds of these—a little *Golden Rod*, some perennial *Sunflowers*, and *Pyrethrum uliginosum*. These, of course, are all to flower from August to October. *Hollyhocks* and *Foxgloves* will give you colour in June and July and look very well. In front of these coarser subjects are the beautiful *Delphiniums*, in all shades of blue, which flower from June to end of July, alternated with *Oriental Poppies* (various), which flower from May to end of June. With these also are the invaluable *Lupins* in white and shades of blue, and the yellow *Tree Lupin*, with *Columbines* of both kinds, and *Galega*, blue and white; but if your border is not wide these last, being of somewhat rank growth, may be wisely omitted. All these plants will be in flower in May, June, and July, and they are about the same height.

To these, too, we have added some of the *Campanulas*, the best being *persicifolia* and *carpatica*, which flower in July, and a large-flowered *Campanula*, which, I believe, is called *Platycodon grandiflorum*, in three shades—white, blue, and lavender.

Scarlet *Lychnis* succeeds the *Oriental Poppy* of the same colour, and the charming mauve *Erigeron speciosus* will give you a mass of blossom all June and July. Then you have the *Geums*, which are valuable assets for many summer weeks, as are also one or two *Potentillas*.

In May the yellow and orange *Trollius* will serve you in good stead, and then also you

will have the beautiful hybrid Pyrethrums, double and single, and the gorgeous Pæonies. In April and May all the Narcissus tribe are in possession of your borders, and the hybrid Primroses, Anemones, and Aubrietia, which you can combine with Alyssum saxatile. Before that all you can expect are the lovely little Squills—Hepaticas and Hellebores. Now, when to this list you have added Violas and Pansies, and your favourite annuals, and a good lot of Canterbury Bells, Sweet Williams and Wallflowers, and Iceland Poppies, you will not have much room left, and you will certainly have plenty of colour and beauty.

No hard and fast rule can be laid down for the arrangement of a herbaceous border, for soil and climate are such powerful factors for and against perfect success; but most, if not all, of the plants I have mentioned are safe and make themselves contented under most conditions. It is wiser not to court failures by being too ambitious at first, but a wise gardener feels his way cautiously and does not expend money on expensive plants only to see them perish. It is so easy to add better things and expel those you do not think worthy of a place when your garden is thoroughly established, and when a year's experience has taught you what you really like and dislike.

AUGUSTA DE LACY LACY.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

ARCTOTIS GRANDIS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I quite agree with your correspondent, J. Higgins, that this is a sun-loving plant. It also requires plenty of moisture at the root during its flowering season, and should be mulched and kept well watered during dry weather. If your correspondent has failed to do this, the flowers not opening properly and not keeping long after being cut are accounted for. J. Higgins is rather severe in condemning it because it does not open in wet and dull weather; He cannot be a very close student, or he would have noticed that very few flowers of that type do open during such weather. For cutting purposes I have found it very useful; its delicate scent and colour are very pleasing, and it lasts a reasonable time in water. As a border plant I think it will hold its own with any annual of the same type. M. T.

The Gardens, Hawley Hill, Blackwater.

TWO GOOD PEAS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I had my first dish of green Peas on April 5 this year, and my last dish yesterday, the 11th inst. As I have only one man for garden and stable and mine is a light soil on chalk, I think it may be of interest to your readers to learn what may be obtained by careful work. The seed first used was Fidler's Earliest of All; the last was Fidler's Late Marrowfat.

SUSAN MUIR MACKENZIE.

The Hermitage, Effingham, Surrey.

ROMNEYA COULTERI AND WHITE BUTTERFLIES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Apropos of your note concerning caterpillars on Romneya, I find that this plant is specially attractive to the white butterfly, and



THREE CUCUMBERS FROM ONE JOINT.

(Weight, 1lb., 1½lb., and 1½lb. respectively.)

swarms with its green caterpillars. By cutting it down to the ground in winter and burning the leaves the first hatch of caterpillars is destroyed, and the plant is nearly full grown when the second hatch of caterpillars appears (about July), from eggs laid by the first brood of butterflies. This year, when the caterpillars appeared in July, I syringed with arsenate of lead solution, and there was not a single disfigured bloom on a large specimen. The solution was probably too strong, as some of the leaves were marked, but I hope with care to avoid this next year. Some people, I understand, find it a difficult subject to propagate, but by taking up suckers in spring



A ROSE FREAK IN A DURBAN (NATAL) GARDEN.

and keeping them in a cold frame I have had very fair success.

Rothley, Loughborough.

A. H. BENNETT.

A PROLIFIC CUCUMBER.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I send you a photograph of three Cucumbers (Carter's Windsor Castle) growing from one joint. They measured 14 inches, 15 inches, and 16 inches, and weighed 1lb., 1½lb., and 1½lb. respectively. From another plant of the same kind I cut a Cucumber which measured 18 inches in length, 8½ inches in circumference, and weighed 3½lb.

N. N. F. CAVENDISH.

Blacklands Hall, Cavendish, Suffolk.

PURE PINK RHODODENDRONS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Can you inform me in your valued paper of the best pure pink Rhododendrons of the colour ascribed to the old Bianchi by Miss Jekyll in her "Wood and Garden," and where I can best procure same, also if the old Bianchi can still be bought anywhere.

T. E. CROMPTON.

Rivington Hall, near Bolton, Lancashire.

[The finest self pink hardy Rhododendron in cultivation is undoubtedly Pink Pearl, which has within the last few years attracted a large share of public attention and formed the subject of many notes in THE GARDEN. It is in general appearance quite distinct from the numerous garden hybrids to which that old variety Bianchi belongs. Of hybrid kinds with pink flowers a good selection is John Spencer, Lady Eleanor Cathcart, Marquis of Waterford, and Mrs. John Kelk. All these and many others can be obtained from Messrs. John Waterer and Sons, Bagehot, Surrey, one of the largest growers of Rhododendrons that we have. The variety Bianchi has almost dropped out of cultivation, but probably they could supply it.—Ed.]

A ROSE FREAK.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I send you a photograph of a floral freak—a Rose (Prince Camille de Rohan) grown by my brother, Mr. Douglas Parker, in Durban, Natal. As will be seen, this Rose sent out a bud, but before it opened another bud shot out from the centre, opening into a perfect flower.

RUTH PETTIGREW.

Camden Wood, Chislehurst.

ORCHIDS.

ORCHIDS AT FRIAR PARK, HENLEY-ON-THAMES.

THIS is one of the few places in Great Britain where the owner keeps a large collection of species. A few days since I noted in the cool house quite a host of plants in flower, Brazilian, Ecuadorean, and Guatemalan, all side by side in happy contrast. The Oncidium included the gorgeous *O. macranthum* from Ecuador, with its twining flower-scapes several feet long, and carrying numerous large, showy, bronze and yellow-coloured flowers; the bright rich copper-coloured *O. crispum* and *O. varicosum*, both from Brazil, having extra large spikes of yellow butterfly-like blossoms; *O. harrisianum*, in striking contrast with a huge spike of the bronze and yellow *O. Forbesii*; the lilac and white-flowered *O. incurvum*; also *O. undulatum*, with extraordinary long and beautiful many-flowered spikes, and others. The *Odontoglossums* are represented by the indispensable *O. crispum* and the somewhat rare white and chocolate-coloured *O. madrense*, with its charming yellow crest. There were also grand plants of *O. Pescatorei*, also the remarkably

free-flowering *O. biconense* and *O. polyxanthum*, together with particularly good examples of the huge yellow *O. grande*. Other notable species were *Bletia Woodfordii*, *Maxillaria Lindeni*, together with the bronzy brown-flowered *M. Turneri* and *M. venusta*; also the very distinct deep rose-blotched *Lycaste plana*, *Laelia pumila*, with its pretty flowers and compact habit, and *Trichopilia crispa marginata*. This is perhaps the showiest of all the *Trichopilias*. Mention should also be made of the very fine plants of *Nanodes ramosum* and the Peruvian *N. Matthewii*, the *Stenoglottis longifolia* from the South African veldt, exhibiting its many-flowered and numerous spikes of light mauvy purple flowers, besides many others, all showing the best culture.

Among the *Masdevallias* in bloom there were plants of the showy and brilliant *M. Pourbaixii*, *M. ignea*, *M. Veitchii*, the tiny *M. simula*, the long-stemmed *M. ochthodes*, the pale yellow and brown purple-spotted *M. myriosigma*, a most free-flowering species; the beautiful *M. gemmata*, with its curious gnat-like appearance; *M. nidifica*, and the deep chocolate-coloured *M. calura*, rendered very distinct by its orange-yellow tails, together with *Restrepia*s and *Pleurothallis*, *P. tridentata* and *P. macroblepharis* being specially interesting by reason of their structurally strange blossoms resembling insects. In the intermediate division of the Orchid range several handsome specimens of *Miltonia moreliana atropurpurea* were very striking in their dress of intense purple-red colouring. *Brassavola Pericii*, with its white blossoms and shell-shaped labellum, is an attractive plant; so also is the pure white *Burlingtonia venusta*. Several specimens of *Celogyne massangeana*, with their pendulous, many-flowered spikes, made a good show. *Miltonia Clowesii*, several *Laelio-Cattleya blotchleyensis*, no two of which were alike, *Epidendrum Wallisii*, and *E. ciliare* made an interesting display.

In the stove division the Sierra Leone *Bulbophyllum barbigerrum* always commands attention. Here also in bloom were the curious-flowered *Catasetums*, together with the beautiful white-blossomed *Phalaenopsis rimestadtiana* and a little gem of an Orchid, the *Sigmatostalix radicans*, with white and greenish flowers, having a yellow crest and chocolate column. Leading out of the Orchid range is a handsome domed structure filled with the choicest and finest specimens of succulent and cactaceous plants procurable—huge *Echinocactus*, in columnar masses upwards of 3 feet in height and bigger than a man's body. The *Pilocereus senilis*, or Old Man Cactus, is here represented by a noble specimen 5 feet in height; but perhaps the most brilliantly beautiful of all the *Echinocactus* is the *E. pilosus*, with its rosy crimson spines in striking contrast with a noble specimen of the yellow-spined *E. Grusonii*. Here, too, is the charming *Rhipsalis Cassytha*, full of Mistletoe-like fruits. *Cereus triangularis variegata* is a very showy plant, with pure bright buttercup yellow variegation. *Opuntia microdasys minor* is a remarkably beautiful species, with flat, much-branching stems covered with tufts of golden filaments, and one of the most remarkable little plants is *Mamillaria lasiacantha plumosa*, having a mass of small cylindrical green bodies, each surmounted by a spreading cup composed of a cobweb-like filamentous silvery substance. Here are huge *Opuntias*, *Euphorbias*, diminutive *Mesembryanthemums*, and *Crassulas*, curious *Stapeliads*, *Ceropegias*, and *Kalanchoes*, the handsome and showy *K. kewensis* well flowered. I have only mentioned a few of the striking kinds composing this superb collection of plants, which probably is unrivalled, as a selection of the best, by any other collection, either public or private. They certainly form a most interesting feature, and have been selected with the greatest care and judgment. These few notes of the many remarkable plants to be seen at Friar Park will, I hope, be supplemented on

another occasion. Volumes might be written of the special gardening and extremely varied collection of plants of all kinds cultivated here, both under glass and in the open. ARGUTUS.

THE FRUIT GARDEN.

PEACH PRINCESS OF WALES.

SHOWN in the accompanying illustration is a tree of the Peach Princess of Wales, which covered a wall space of 144 square feet, and carried 180 fruits. I never remem-

ber seeing a finer lot of Peaches; some weighed 16oz. Other varieties of the Peach grown here, all of which give great satisfaction, are *Grosse Mignonne*, *Royal George*, *Barrington*, *Bellegarde*, and *Waterloo*. Of *Nectarines* we grow several varieties; of these perhaps *Lord Napier* is the best. J. P. WATSON.
Stoke-on-Trent.

THE GREEN-GAGE PLUM.

THAT this is the most delicious Plum grown is a fact few people will dispute. It is best when fresh gathered from the tree. Those bought in shops are not to be compared with such fruits. Many are chary of planting the Green-gage because it has acquired the reputation of being a shy bearer. It flowers freely, and apparently sets its fruit, but they drop off when about the size of No. 4 shot. Young trees are not so subject to this as long as they are growing freely. It is when the fan-trained tree has filled its allotted space and becomes, in too many gardens, a rigidly ap-

pruned tree that it refuses to swell its fruit. It is not difficult to call to mind many fine old trees which are every spring a mass of snowy white blossom, but bear fruit only in exceptionally good seasons. The directions given in some books and methods taught by those who should know better are to blame for this. No distinction is made between such Plums as the *Czar*, *Rivers' Prolific*, and those allied to the *Gages*. The branches having been trained in at the proper distance apart, all the shoots, with the exception of those needed for extension, are directed to be cut back to within five or six buds of the base in summer, and still further shortened in winter. This answers very well for most

common Plums, which produce wood and fruit-buds at nearly every axil. The *Gage* Plums differ not infrequently by bearing small clusters or single fruit-buds only in the axils, the wood-bud occurring at the apex of the shoot. It follows that if the shoot is shortened the only wood-bud above the fruit-buds is removed, and the latter fail in consequence. The wood on young trees is allowed to extend, and this explains why they often succeed where the older trees fail.

Gage Plum trees should be trained and pruned somewhat similar to a Peach tree, viz., young shoots should be laid in more or less every summer about 5 inches apart, choosing for the purpose the small twiggy growths, cutting out



PEACH PRINCESS OF WALES IN DELHORNE HALL GARDENS, STOKE-ON-TRENT.

in winter those which fruited the previous autumn. If the trees become gross, resource may be had to root-pruning, incorporating with the soil a plentiful supply of lime rubble and wood ashes. We prefer to spray, just before the flowers open and again after the fruit is set, with *Quassia Extract* as a preventive against insects. As the fruit often sets thickly in clusters, they must be thinned to 6 inches apart or good dessert fruit cannot be expected. Having grown a large, well-developed fruit, there is always a danger of its cracking in wet weather. We find the best protection is to cover with glass, or arrange a strip of canvas or tarpaulin on the top of the wall to keep off the wet, fastening the

lower side to a wire strained at a suitable height and about 3 feet from the wall. If those in possession of unfruitful Green Gages would give the above method a fair trial, they would be well satisfied with the result. J. COMBER.

PEAR DR. JULES GUYOT.

THIS Pear is classed in fruit catalogues as an early September fruit, but on a warm wall it invariably ripens towards the third week in August, and in advance of the well-known Williams' Bon Chrétien; it gives a crop when the last-named fails. In appearance it is not unlike the Williams, but a little larger, a longer fruit, with a pale yellow skin and crimson blush on the sunny side. The flavour is excellent, as there is no mustiness, which the older variety has, and, in addition, being a late bloomer, it escapes late spring frosts, where earlier sorts fail. With us, Dr. Jules Guyot rarely fails to crop, and it is, therefore, most valuable, especially in such seasons as this, when so few varieties are bearing. Grown on the Quince it is compact, and it makes a nice bush or pyramid. We grow a good number in cordon form to get fruit as early as possible, and in our light soil the fruits colour very well. Like the Williams they do not keep long. This should be a profitable market Pear on account of its fine appearance, if gathered early.

For early September supplies it gives a good return in bush form. I can thoroughly recommend this variety for appearance, earliness, and quality. It is a Pear that should be in all good gardens. G. WYTHES.

THE ROSE GARDEN.

THE USE OF CHINA ROSES.

ALTHOUGH the China or Monthly Rose has many delightful qualities, and is the most faithful of all for persistency of bloom, it is by no means to be found in every garden; indeed, we may go through many and never see it at all. It is

invariably about the third week in February. Someone who truly loves good garden plants says: "If I had only one square yard of garden it should have a bush of Rosemary, but if I had a yard and a half it should have a Rosemary and a China Rose." It is, indeed, a delightful flower this common old kind, with its loose clusters of cool pink bloom, sometimes cup-shaped and sometimes flattened from the slight reflexing of the fully expanded petals, always dainty and

pleasantly fresh-looking, and with a faint and tender scent whose quality exactly matches its modestly charming individuality. There are garden varieties of deeper colour, but these seem rather to lose the distinctive grace of the type; it is one of the cases, of which others might easily be quoted, where any departure from the type gives varieties that are a loss rather than a gain to beauty.

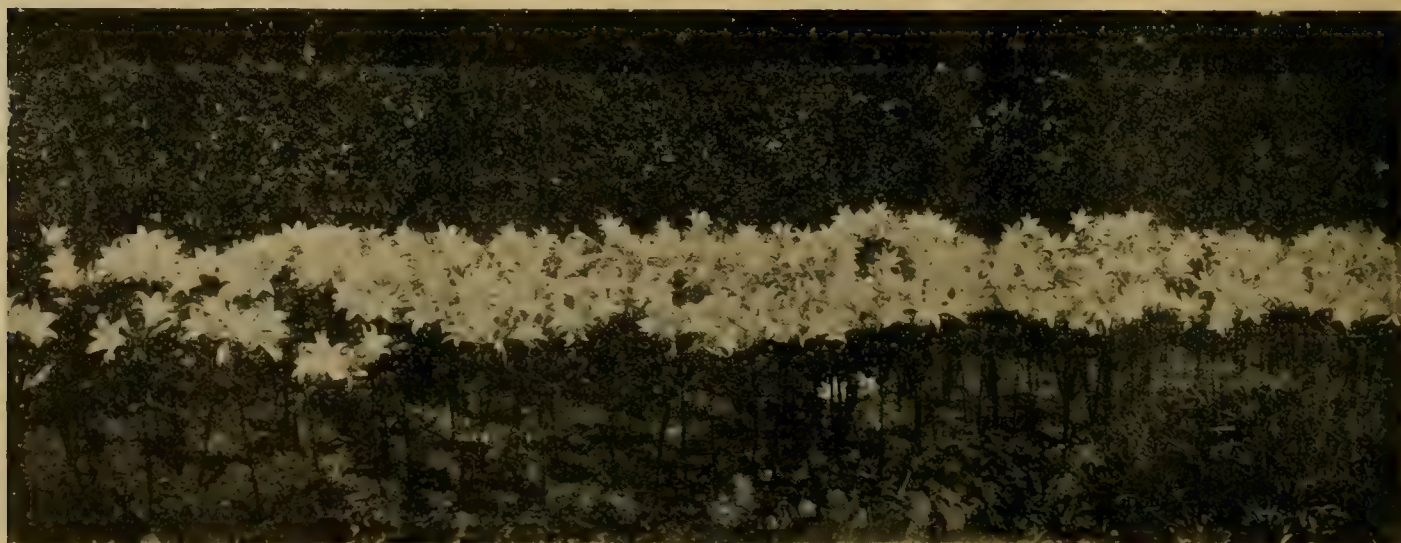
If proof were needed of the merit of this good plant it might be found in the many ways in which it can be used. A hedge of China Rose is always pretty, and there is a certain class of greyish foliage with which it enters into most satisfactory combination. The cool dusky foliage of Rosemary is the best of grounds for the clear pink flowers and the grey of Lavender is equally pleasing. Old Lavender bushes that are somewhat over-



CHINA ROSES IN OCTOBER.

one of those good things that have that rare quality—rarest of all among the Roses—of a continual blooming season of many months. For a good half of the year one may have blooms on the bushes and branches of China Roses indoors, and even a bud or two through the winter that in sheltered places will develop into quite shapely flowers in that warm, sunny weather—that welcome foretaste of summer—that comes almost

grown, and whose branches fall about, leaving dark empty spaces in the heart of the bush, seem to invite the companionship of these pretty pink Roses, whose flowering branches can be led into the empty spaces. Even if it be desired to do away with the old Lavender whose lifetime is shorter than that of the Rose, and to plant them afresh, that is only an opportunity for cutting the Roses down and letting them



THE BELLADONNA LILY IN A SOUTH DEVON GARDEN.

grow up anew in company with the young Lavender.

But it is not with grey-leaved shrubs alone that China Roses should be planted. Their fullest season is towards the end of June, but even as late as October they are fairly full of flower. The flowering bush Ivies are then in bloom, and on sunny days attracting a busy humming crowd of insect life. Here again the pretty pink of the Rose bloom is charming with the yellow green of the Ivy clusters, and as the Ivy bushes grow to their full height of 5 feet or 6 feet the Rose shoots up in friendly companionship and thrusts long flower-crowned stems through the mass.

With the *Anemone japonica* it also groups well, or with hardy Ferns, and makes good autumn garden pictures. No Rose is more accommodating, for it will bloom either in sun or shade.

Of late years the China Rose has been wisely used by hybridists, whose labours have given us charming Roses that inherit the long blooming qualities of the China parent.

NOTES ON HARDY PLANTS.

BELLADONNA LILIES.

I AM sending you a photograph of a bed of *Belladonna Lilies* in a Devonshire garden. The beautiful rose-pink flowers have been at their best during this week (end of September), many of the stems carrying nine to twelve blooms. The bulbs were planted about five years ago in well-dug ordinary garden loam. The only attention they receive is a good mulching after the leaves have died down, and in early September, before the flower stems show themselves, they are well watered with manure water. The bed faces nearly south, and is protected from north and east by a thick hedge. When cut the flowers will last ten days to a fortnight in water.

Applegarth, Devonshire. H. P. E.

HELIOPSIS PITCHERIANA.

THERE are many interesting things in the pleasant articles by Captain S. G. Reid on "The Passing of Summer," and one of these, to me, is the remark made on page 236 regarding this *Heliopsis*. Captain Reid remarks, "*H. pitcheriana* is the best I have." I should like to know if he has *H. scabra* B. Ladhams and that known as *superba*, which came from the garden of the Rev. C. W. Dod, and which I had direct from him. It so happens that Mr. E. Molyneux and I have had some correspondence with each other on the subject of these plants, and that very able gardener and judge of flowers considers B. Ladhams better than *pitcheriana*. I am of a contrary opinion, although there are certainly times in the course of the flowering season when the other two named do look deeper in colour than *pitcheriana*. I grow all three in one border, and I have found that *H. pitcheriana* is the first to come into bloom, that it continues as late in the season, and that, taking it all in all, it is the deepest orange-coloured of the three. Not content with my own judgment, I have put the question to several friends with a wide knowledge of hardy flowers when they were visiting my garden, and they have all agreed with my opinion that *H. pitcheriana* is the best-coloured of

the three. It appears to me that those who are of a contrary opinion may have the wrong plant as *pitcheriana*. Mr. Molyneux very kindly sent me B. Ladhams, and I hope shortly to send him a piece of my *pitcheriana* as a test how far the different soils and climates may have affected the colouring. I wish Captain Reid could tell

which has in consequence become unknown to many garden lovers, is the *Montpelier Rush* (*Aphyllanthes monspeliensis*), a pretty perennial belonging to the Lily family, and now but seldom seen. Its comparative neglect is probably largely due to the teaching that it requires "a warm sunny situation and slight protection in winter."

This is the instruction given by a work of great value, and one whose teaching may generally be absolutely relied upon. In this case it is largely at fault, and this *Aphyllanthes* is much hardier than supposed, although on some soils it may be the better for the protection suggested above.

I have seen it under very varied conditions, and in all of these it was perfectly hardy, but it was only recently that I found it succeeding admirably in an exposed position at the top of a rockery in the Edinburgh district, and in the garden of a most able cultivator of very great experience. The plant here was a really fine one, which had been in the same position for a considerable time, and which had not received winter protection. In ordinary circumstances it is cultivated in the border, and where it receives special care it is treated to a peat soil, and sometimes to a position where it is rather moist in summer. In one garden known to me it is successfully grown in a rather low border of peaty soil, natural to the district, and where moisture is not far from the roots, and here again it is quite hardy. It will be thus seen that the *Montpelier Rush* is amenable to vastly differing circumstances, especially as it can be grown in the cold district in the neighbourhood of Edinburgh as well as in the South of England and Scotland. The plant to which I have referred as grown at the top of a rockery was the object of much notice on the part of another visitor to the garden. Neither of us had observed it in a similar position before, and its flourishing condition was a surprise. The *Aphyllanthes* is so distinct in its appearance from most plants of its season that there will be many anxious to try it for the sake of its neat, Rush-like foliage and its pretty deep blue flowers.

S. ARNOTT.



CLEMATIS DAVIDIANA.

(From a photograph sent by Professor Waugh, U.S.A.)

CLEMATIS DAVIDIANA.

I SEND you a photograph of *Clematis davidiana* as it is grown at the Massachusetts Agricultural College. This was figured in THE GARDEN, and seems to have been known to the trade for some time. However, it is still very rarely grown in America. In our experience it is one of the best of the genus; in fact, I would choose it first of all if I were to be limited to one *Clematis*. It is usually described as herbaceous and semi-erect, but with us a considerable quantity of woody stems are formed, and these withstand the winter fairly well. The plant can be tied up on a trellis or other support, somewhat like *C. crispa*.

The flowers, which are usually said to be light blue, are almost white. They are very agreeably fragrant, too. The species is said to be difficult of propagation, but we find no trouble in multiplying it by green wood cuttings in a cutting bench. We consider it worthy of much wider use.

F. A. WAUGH

us if he grows the other two referred to in this note. S. ARNOTT.

Sunnymead, Maxwelltown, Dumfries.

APHYLLANTHES MONSPELIENSIS

ONE of the plants which appears to have been much misunderstood in British gardens, and

GARDENING FOR BEGINNERS.

SIMPLE HINTS.

MORE NOTES UPON GARDEN-MAKING. — It has been said, "Give a man secure possession of a barren rock, and he will turn it into a beautiful garden." I often hear the remark, "If the place were mine I should take delight in doing the work thoroughly, but under present circumstances I only want it made decent, as I don't care to spend money upon other people's property." Horticulture and Agriculture are twin sisters, and both are suffering from insecurity of tenure. This is the main reason why the better kinds of trees, shrubs, and hardy flowers remain unsold in the nurseries, and the advertiser of cheap rubbish finds a ready sale for his inferior goods, which often leads the purchaser to use strong language, and as a final result the garden is left untilld and without plants of a suitable character. This is a money-grubbing age; efficiency is sacrificed upon the altar of cheapness. But it will not always be so.

The Most Important Point for beginners is to deepen the soil. Get hold of a man that knows how to use a tool; pay him a fair wage and look after him; keep him up to his work. Most of the men who are now occupying high positions in gardening, in their young days among their first lessons was the art of using tools. From what I have seen of the teachings of horticulture in technical schools the proper way of using tools is altogether ignored; manual labour—or, in other words, practical work—does not carry any weight. Science, often of a nondescript kind, may cover a multitude of sins, but it should stand upon a firm foundation. We want more science. We want to know the best ways of killing insects and checking fungoid attacks, but we want as a basis to work upon thorough cultivation, and that means a good knowledge of tools and their capable and intelligent use. Good manual work in the garden is one of the best preventives of insect and fungus attacks. It is well to know the best ways of killing our insect foes and destroying the incessant fungus attacks which are now so common in the garden and field. But it is far better to prevent their appearance, and this will never happen until the cultivation of the land is worked on better lines, the most important point of which is deepening and improving the character of the soil. This is why I am dwelling somewhat lengthily upon this matter, so important to the beginner. My contention is that a man who knows how to use tools properly is in his humble way a scientist. In a previous issue I referred briefly to suitable trees and shrubs, especially as regards screens.

A Wind-swept Garden can be made secure by planting trees and shrubs, but they should be suitable for the climate of the district, and their size when fully grown should bear some relation to the size and character of the place. There are trees and shrubs which grow like Willows in the southern counties, especially near the south and south-west coasts. *Cupressus macrocarpa* near the sea on the south-west coast makes a handsome tree, but in the eastern counties and many places inland the tree succumbs to the first severe winter. In our planting operations, especially in difficult situations, the first place should be given to our native trees. Hollies are among the most beautiful things in Nature. Prepare the site well and plant freely all the best varieties, and, if the planter is not well up in his knowledge of Hollies, let him visit a good nursery where Hollies are a speciality. Most people like to see berries on their Hollies;

therefore in purchasing it may be as well to stipulate that a fair proportion of females shall be sent. Of course, male plants bear no berries, and in the best nurseries the female plants are marked. In budding or grafting this is borne in mind. It would be a misfortune if in planting Hollies one had too large a proportion of males. Some males there must be, or there would be no berries. The circulation of the air, or, in other words, the wind, scatters the pollen of the males over the blossoms of the female plants, which leads to the production of the berries, and if it could be managed to plant the males on the side from which the prevailing winds came the pollen would not be wasted.

Every shrub or tree capable of bearing fruit should be placed in a position to produce it. Though the casual observer may not have noticed it, there are many trees and plants on which the reproductive organs are on separate plants, which are classed as males and females. Gardeners were for a long time ignorant of the fruit-bearing character of *Aucuba japonica*. The first plant introduced was a female, and it was not till the



SPRAY OF FUCHSIA RICCARTONI.

introduction of the male many years after that it was discovered that the *Aucuba* was a very brilliant plant indeed when covered with scarlet berries. *Skimmia japonica* and its varieties form another very beautiful and interesting family of small shrubs, in which the male and female have a separate existence, and there are many others which need not be referred to now. This is one of the matters that beginners should know something about in order that they may then plant in perfect condition, which is not possible unless males and females, where the sexes are separated, are planted within reach of each other.

Do Not Buy Cheap Trees and Shrubs.—Many small and even large gardens and grounds are overloaded at the beginning with common things. A well grown Laurel or Spruce Fir has considerable value in a game covert, but they are not just the best things to plant in a small garden; sooner or later they will become an eyesore, and will have to be removed. In my ideal garden I would plant only the things that are not only interesting and beautiful when young, but that will improve with age. There are positions where a Larch or

Scotch Fir, or even a group of each, give us just the feature we want to complete the picture, but the place must be large to admit of their introduction, though I have used both in the background of wide positions where as much variety as possible was wanted. Whenever purchasing trees or shrubs it is of the first importance that they are obtained from a nursery where transplanting is regularly done. In the best nurseries the things are moved every two years. Think of the expense of this immense amount of labour, and what a temptation there is for the trade grower to postpone such work to the detriment of the purchaser. The tree or shrub which has not been moved for years, it may be, may have a brighter and glossier appearance, but move it with its lacerated roots to a fresh position (and those people who do not take the trouble to transplant are not usually particular in lifting and packing); when the trees are planted in their new positions, and the March winds have done with them, there will be a good deal of wreckage to move. Experience is a dear school, but a certain class of people will not learn in any other way. A man who buys in such a market needs a long purse.—H.

Fuchsia Riccartoni.—The illustration shows a spray of this beautiful hardy Fuchsia, which is one of the most beautiful shrubs for the garden. It blooms far into the autumn, and makes a graceful bush hung with crimson flowers.

A Simple Bulb-forcing Apparatus.—Doubtless there are a large number of people who would like to force bulbs into bloom during the winter months, but think they are debarred from so doing because they do not possess a greenhouse. A glass house is not an absolute necessity, however. Some years ago the writer made such a forcing-frame, and it may be of interest to give a brief description. The manner of making really does not consist in much more than the putting together of a box without a bottom. The most useful size for this frame is about 2 feet by 3 feet or 3 feet 6 inches. For material there is nothing better than inch match boarding. The depth should be about 2 feet in the front, the two side pieces being cut slantwise at the top, thus bringing the depth at the back up to about 2 feet 6 inches. One of the side pieces should stop short about 6 inches from the ground, leaving an open space to admit of the passage of the lamp. For the top of the frame, of course a properly-made light is the best, and these can nowadays be purchased very reasonably ready-made. A strip of wood tacked along the top of each of the end pieces will keep the light in position as well as providing runners on which it can be slipped up and down.

The next thing is to get some ironmonger to make a shallow tank of galvanised iron about 3 inches in depth, and of a size that will easily slip down inside the frame. A flat piece of iron to act as a cover to the tank should also be obtained. This should have a hole bored in one corner, say about 1 inch or so in diameter, through which the tank when in position may be filled. Stout strips of wood should be firmly fixed on inside both the front and back walls of the frame to hold the tank in position. These should be very strong, as the weight of the tank when it is filled with water will be considerable. These supports should be arranged so as to bring the top of the tank cover about 15 inches from the glass at its lowest. The bottom of the tank will then be about 6 inches from the soil. There only remains now to make provision for the lamp, and

it will be necessary to excavate to the depth of about 6 inches, in a position about under the centre of the bottom of the tank when the frame is in position. A little roadway leading to the receptacle from the outside of the frame must also be dug out, for it must be borne in mind that the lamp will have to be daily taken out and replaced for filling and trimming.

Regarding the best kind of lamp, it is rather difficult to purchase one which is quite suited to the requirements of such an apparatus, and it is as well to instruct a tinsmith to make a lamp with a large reservoir to hold a pint or even more of oil. To this should be fitted an inch burner, that is, one taking a wick an inch in width. This will be quite large enough to heat a tank of water of the size under consideration. The tank having been filled with water through the hole in the lid, the whole surface of the cover is strewn to the depth of several inches with moist cocoanut fibre. Taking for granted that the lamp has been filled with oil, everything is now ready for an experimental heating. It is very important that the apparatus should be thoroughly tested before any plants are introduced, in order that the correct height to which the lamp may be turned may be discovered. The water in the tank should just be warm, but not by any means hot, and a thermometer with its bulb in the fibre should register about 70°. If the working of the apparatus is found to be satisfactory, boxes or pots of well-rooted bulbs may now be plunged in the fibre, and if the heat be steadily maintained night and day, it is surprising how quickly the plants will come into bloom.

Hyacinths and Tulips which are in any way suited for forcing will be found to be well adapted for growth in such a frame as described above. The *Narcissi* are unsatisfactory subjects for cultivation in such a frame. The amount of oil consumed in a lamp of the size just described is not a big matter, as once the water is warmed, quite a small flame will be all that is necessary to keep up the temperature. The wick of the lamp should be trimmed at least once in the twenty-four hours, or the lamp will smoke. Smoke will almost certainly find its way up into the place where the bulbs are, and the grower will sorrowfully discover that there is nothing in the world that spoils flowers like paraffin oil vapour. It is a good thing to get in the habit of glancing at one's forcing frame the last thing at night to see that there is plenty of water in the tank and that everything is in order. Careful attention should, of course, be paid to the moistening of the fibre, as well as to the watering of the soil in which the bulbs are planted. With such an apparatus, if careful arrangement be made for a succession, a house might easily be kept supplied with bloom throughout the winter. The cost of running a frame like this, too, is small.—S. L. B.

Never Make Useless Walks.—A garden much cut up with brown lines of gravel is never restful, and is often irritating to the mind. If a walk from the natural exigency of things must come to a dead stop anywhere, place a garden seat at the terminus and shelter it with an arch of Roses or in some other way to secure privacy. Making a garden is something like building and furnishing a house—the longest-sighted person cannot see it all at once. One thing leads us on to others; the years move round, and at last, when we pause to rest and take stock, as it were, we are surprised to find how pleasant and interesting the work has been, and that there is still sufficient to do to last us the term of our natural lives. This, I take it, is the aim and object of gardening. We are always learning; always moving onwards and striving, it may be, after the unattainable; but, if we aim high enough, some good will come of it. At any rate, gardening, when once interest has been aroused, does not permit its votaries to rust out in idleness.

Many Ways of Making Walks.—The speculating builder simply lays down 1 inch or 2 inches of the cheapest gravel he can get and lets or sells the place, but to enjoy a garden we want a walk that is dry and firm in all weathers. To obtain this we must excavate 9 inches, place in a foundation of rough brick rubble, break the surface pieces with a hammer, and put into correct shape, with the centre raised a little in proportion to the width, and then finish off with 3 inches of good binding gravel, rolling this down firmly. In large gardens with broad walks and terraces drainage may be necessary, with gratings for carrying off the surface water, but in small gardens this expense is not generally required, as the walks will be dry and firm if properly made.

Edgings to Walks.—When a walk runs through a lawn there will, of course, be a turf ending on the lawn side, but unless the space on the other side is wide enough to permit of a wide margin of turf, do not have turf at all, as these narrow strips of turf are always difficult and troublesome to keep trim and true in outline. I have used many things as edgings to beds and borders. Ivy, of some of the small kinds, is always neat and green. *Euonymus radicans* and its variegated variety are among the best plants I know for permanent edgings. A broad band of golden Thyme trimmed in with the shears occasionally to keep it fresh and true is useful, and there are places where a rough stone edging furnished with creeping plants will be charming.—H.

GARDENING OF THE WEEK.

FLOWER GARDEN.

GENERAL REMARKS.—Immediate attention must now be given to any alterations intended to be carried out. Look over shrubberies, marking any choice specimens or varieties to be moved to other situations, and those to be thinned out, grubbing up any that are common and unsatisfactory, or those that are over-luxuriant for their positions and overgrowing choicer and rarer shrubs. Periodical thinning out is an absolute necessity among thriving deciduous trees and shrubs, and is much to be preferred to continual clipping and pruning, for under that régime neither trees nor shrubs have the remotest chance of developing their full beauty of form. Of course, cutting out or shortening in an occasional strong or misplaced shoot or growth reverting to the type should, and must, be done; but severely trimmed dumpy plants are seldom objects of natural beauty, and not generally admired.

LAURELS.—However grand common and Portugal Laurels are in appropriate positions—and they undoubtedly are noble evergreens for many purposes—still their place is not among choice shrubs, for their rampant growth quickly smother more delicate plants unless the objectionable trimming is resorted to, and in preference to that I have no hesitation in recommending their clearance from the proximity of groups and shrubberies. They are splendidly adapted for forming game cover, fringing woods and outskirts of wild gardens, and for shutting out unsightly objects—none better.

PRIVETS.—Green and variegated should likewise be entirely discarded from association with choicer subjects, and relegated to the company of the Laurels outside the flower garden, for although their top growth is not quite as aggressive as the Laurels, their roots are even more so, and are voracious feeders. It is most unfortunate that so many of our fine Lilacs are worked on this stock; it often precludes their occupying positions among choice shrubs. The above, with other common shrubs, often solely occupy splendid positions on the outskirts of lawns, banks, &c., that might be judiciously planted with far more interesting subjects. Where such facilities abound, clear out with a free hand all coarse plants and vegetation. Thoroughly cultivate the sites, adding suitable soil and manure as required, and prepare generally for replanting. Well designed and arranged banks and groups, large or small, according to the extent available, and planted solely for autumn foliage effect, are very beautiful at this season.

If not already done, tender bedding plants intended for wintering under glass should be housed without delay, and planting bulbs and hardy plants for winter and spring display proceeded with as quickly as possible. Absence of frost so far has prolonged the summer days considerably.

The Gardens, Tran-y-bwlch, North Wales. J. ROBERTS.

INDOOR GARDEN.

CARNATIONS.—The Malmesbury layers in 3-inch pots may be transferred to 6-inch pots when well rooted. Some growers leave them in the smaller pots till spring, but it

is usually through lack of space, for much better results are obtained by potting the plants now. Use a compost of three parts good fibrous loam, one part leaf-mould, and coarse sand, adding a little mortar rubble, bone-meal, and soot. Place them on a light stage or shelf in a cool house, with a minimum temperature of 40° Fahr. Failing this, leave them in a cold frame, and cover up on frosty nights, till house room can be found for them.

ROSES.—Select the plants for flowering early in the new year. Prune and thin out the shoots, and scrub the pots. Teas and Hybrid Teas are the best for early forcing. Less pruning is necessary for these than for Hybrid Perpetuals. Place them in a cool house or frame, and ventilate freely. In about a month transfer them to a light house with an intermediate temperature. If glass protection is not available for the general batch, plunge the pots in ashes, placing Bracken or some other similar material amongst them as a protection against frost. It will also be better to protect *Deutzias* in this way. All forcing plants outside in pots should be plunged in ashes or transferred to a sheltered position.

POLYGONATUM MULTIFLORUM.—This plant, commonly known as Solomon's Seal, is useful for greenhouse decoration or for cutting. The long arching stems and pendulous flowers are very effective. The fleshy root-stocks may be bought very cheaply, as large quantities are imported annually for forcing. They may also be grown in the open ground, and potted up for forcing in October. Place thickly in 6-inch pots, as after forcing they can be hardened off gradually and planted again in the open ground.

THE CHRISTMAS ROSE (*Helleborus niger*) naturally flowers in midwinter. Plants flowering in the open ground are much better if a handlight is placed over them. Roots established in pots or pans can be brought on gradually in a house or pit slightly heated. They do not like hard forcing.

PRIMULA FORBESII is a pretty little winter-flowering plant. A good effect is obtained if a number of plants are placed together in shallow pans with a few pieces of sand-stone amongst them. They are easily raised from seed or increased by division. Nerines passing out of flower may be placed in a light position near the roof glass. Encourage luxuriant growth, and feed when growing freely, except the newly potted plants, which should have sufficient nutriment in the fresh soil for this year's growth.

HYDRANGEAS need protection from frost or the buds formed to produce flower heads next season will be spoilt. A cool greenhouse where frost is excluded would be an ideal place for them.

Royal Botanic Gardens, Kew.

A. OSBORN.

ORCHIDS.

SUCH noble plants as *Vanda tricolor*, *V. suavis*, and their several distinct varieties are attractive, either in or out of flower. Frequently, and especially after a hot, dry summer, these plants lose a number of their lower leaves and become very unsightly. Sometimes this is caused by allowing the plants to flower too much, also by subjecting them to high temperatures, combined with aridity in the atmosphere. Those plants that are in such condition should be taken in hand at once, this being the best season for the work. Plants that have lost their lowest leaves should be attended to first. From those in large pots the old sphagnum moss and drainage material should be carefully picked out. Healthy plants invariably have a number of living roots clinging to the sides of the pots. These should not be removed unless absolutely necessary. The base of the stem may then be cut off, so that when the remaining part of the plant is pressed carefully down to the bottom of the pot the lowest leaves are on a level with the rim. As regards well-rooted specimens, it may be impossible to lower the plants in this manner without cracking some of the roots, and it may be found necessary to ease several of the roots from the sides of the pot, but no harm will be done if the work is carefully performed. When the plant is in position in the centre of the pot, place from 2 inches to 3 inches of large crocks at the bottom for drainage, and on this a layer of sphagnum moss, over which spread the ends of the lowest roots. Carefully work in among them some rough sphagnum moss and moderate-sized broken crocks, pressing it down firmly. Distribute the remaining roots in a like manner, filling up with similar potting material to within half an inch of the rim. Then finish off with a layer of clean picked sphagnum moss, mixing some small broken crocks with it.

WHEN REPOTTING well-established specimens into larger pots, the above directions should be closely followed. After potting tie each stem in an upright position to a strong, neat stake. Peg down any of the aerial roots that are long enough upon the surface of the moss. These in time will send out lateral roots which will enter the moss. With plants that do not require cutting down or repotting, although the material in which they are growing has become decomposed, the latter should be carefully removed and fresh compost substituted. Keep the plants well shaded, and give no water for the first few days; then give them a thorough watering. The moss on the surface will soon be dry again, when it should be lightly damped.

These Vandas require a cool intermediate temperature, a cool moist stage to stand upon, and their immediate surroundings should be kept always moist by syringing well between the pots several times a day. Affording atmospheric moisture in this manner is far more beneficial to the plants than affording large quantities of water to the roots. If no proper intermediate house is at command, the coolest end of the Cattleya house is the next best place for them. Keep them away from the hot-water pipes. They delight in plenty of fresh air; therefore use the bottom ventilators nearest to them freely whenever

the external air is at 50°. Sponge the leaves over occasionally, also the roots that are out of the potting material.

Burford Gardens, Dorking.

W. H. WHITE.

FRUIT GARDEN.

FIGS UNDER GLASS.—Fruits can still be obtained from the latest trees provided they are given a little care and attention. Slightly heat the hot-water pipes during cold or wet weather to dispel excessive moisture. The house must be kept quite dry, or the fruits will split badly before they are quite ripe, which will render them unfit for packing. The trees require very little watering, but they must not be allowed to become too dry. Some of the earliest pot trees may be got ready for starting at the beginning of November. To be successful with the early forcing of pot Figs the trees must be in a suitable condition, and should have been forced more or less on previous occasions. The wood should be of medium strength, hard, and well matured, so that the trees which are intended to be forced should be specially selected as having these qualities. There will be little or no pruning required at this season if they were properly attended to during the growing season in the matter of stopping and thinning, but any weak growths may be cut out. The trees should be thoroughly cleaned before being placed in the forcing house. A little soft soapy water applied lightly with a scrubbing brush will be sufficient, unless they are affected with scale or mealy bug, in which case more vigorous measures must be applied. It will be advisable not to plunge them in a hot-bed for a few weeks, as this may hasten them into growth too rapidly, which would very much prejudice good results, if not end in disaster. A temperature of 45° or 50° will be suitable for a few weeks, and if this can be maintained without having recourse to fire-heat so much the better. Lightly syringe the trees in the mornings during fine weather, but avoid excessive moisture at this time of year, as this will create a cold, stagnant atmosphere where there is not sufficient fire-heat to counteract it. Watering must be done with great care, especially in the case of trees repotted this season. Be careful to ascertain whether water is needed before it is applied, and then make sure that sufficient is given to soak the soil right through. About the middle of December the fermenting material should be placed in ready to receive the trees. It should consist of stable litter and leaves in equal proportions. This should have been well mixed and fermented before being placed in the house. It will then form a hot-bed of a very mild temperature, which will be very suitable for the trees till growth has become active.

EARLY PEACHES AND NECTARINES.—If ripe fruits are required early in May, the trees must be pruned, cleaned, tied, and everything made ready for closing the house at once. If the pruning was carried out as advised in a previous calendar, very little will be required now; but overcrowding must be avoided, so that when the trees are being trained any old branches which can be spared should be cut out. This will admit of more young wood being laid in, and greatly improve the appearance of the trees. A night temperature of 45° or 50° will be suitable for the first month, avoiding fire-heat as much as possible at all times. In the case of trees grown in pots much the same treatment may be given as advised for pot Figs, except that they may be grown without fermenting material till the weather becomes hot, when it may be applied to prevent the soil becoming dry too quickly.

E. HARRISS.

Royal Gardens, Windsor.

KITCHEN GARDEN.

ASPARAGUS.—As soon as the tops of Asparagus show signs of being ripe they should be cut over within 3 inches or 4 inches of the surface of the soil. As soon as this is accomplished let the refuse be cleared away and burned, and the whole plot of ground, whether in the form of beds or rows, be gone over with the Dutch hoe, taking care not to approach too near the crowns of the Asparagus. Should weeds abound near the crowns, let them be pulled with the fingers. Having cleared the whole Asparagus ground of tops and weeds, the next question is the application of manure to the roots. If the situation is bleak and the soil light, by all means apply manure, but not that which is too solid. This is apt to become too compact, consequently holding too much moisture, which must be guarded against as much as possible. Manure that has come from the stable-yard, and which has been previously turned, answers the purpose very well. Let the covering be somewhere about 3 inches or 4 inches deep, and laid on lightly, so that air may pass freely along the surface of the soil.

ONIONS that were sown about August 19, such as Giant Rocca or Sutton's Perfection, germinated freely, and have grown steadily up till now.

They are neither too large nor too small, and, judging by appearances, should winter well; but, at the same time, they will be all the better for being looked over to see that no weeds are about, and having their surroundings freshened up by the Dutch hoe. An occasional dusting of soot, applied on a calm day, will prove beneficial.

PEAS.—Only where circumstances are exceptionally good can autumn-sown Peas ever repay the labour and expense incurred. If good open weather could be relied upon during February for sowing Peas, or if accommodation in glass houses were sufficiently plentiful for the production of young Pea plants during early spring, autumn sowings might be dispensed with. Still, there is always the possibility of a good return when a proper site, possessing good shelter and deep, rich, well-drained soil can be procured. One great factor is a dry bottom, otherwise the Pea seed is liable to rot. Now is the time to make a sowing of Sangster's No. 1, Early Sunrise, William I., or any variety known to be hardy and prolific that possesses a good flavour. Let some trenches 4 feet apart be thrown out, deep enough to allow sufficient dry fresh soil to be placed at the bottom, so that the Pea seed can be sown to the depth of 4 inches. It is further advisable to cover the seed with some of this fresh earth, and after all this has been made fairly level and firm, a few fine ashes laid on the tops of the rows of Peas will in a great measure help to preserve warmth.

MUSHROOMS.—Gather and prepare horse manure for new Mushroom beds as formerly advised. Mushroom beds formed at this date will be of great service about Christmas. Let the beds be built rather deeper than those made up previously. By doing so a more steady and uniform bottom-heat will be maintained. Mushroom beds that have been bearing for some time may be encouraged to prolong their supply by watering the beds with tepid water, in which a tablespoonful of salt has been dissolved in a three-gallon canful of water.

J. JEFFREY.

The Gardens, St. Mary's Isle, Kirkcudbright.

NURSERY GARDENS.

MESSRS. WILLIAM BULL AND SONS, CHELSEA

NEW and rare plants have for many years been a feature in the nursery of Messrs. William Bull and Sons, King's Road, Chelsea, and the same feature is still characteristic. Orchids are now largely grown, and the work of hybridising has been systematically

and thoroughly taken in hand. There are thousands of seedling Orchids here to be seen in various stages of growth, some just peeping through the sphagnum moss on the pots of established Orchids, and hardly recognisable in the tiny round green dots which denote their first appearance. Others in quite tiny pots are more easily recognised as Orchids, and there is no mistaking them when they are large enough to be transferred to the larger pots. Several houses are filled with seedling Orchids in Messrs. Bull's nursery, representing the result of some 1,200 different crosses which have been made. The work of raising seedling Orchids is a fascinating one. One never knows what may turn up. The first flower that opens may indicate that the plant is of great value, or it may be of good form, yet poor in colour, and so will be kept for some time, for it is well known that as the plants increase in vigour often the flowers improve in colour, particularly among the spotted *Odontoglossums*. There are sure to be a great many seedlings that will prove to be inferior to their parents, and, of course, they have to be thrown away. There ought to be some valuable things among the seedlings in this nursery, for the parents were all really good sorts. Some very beautiful Orchids have been raised during the last fifteen years, but the hybridist is as busy as ever, and evidently believes there is still plenty of scope for producing even finer ones. One valuable characteristic about many of the artificially-raised hybrids is that they are more easily grown in this country than imported species, and that will doubtless tend to make them increasingly popular.

There is a good collection here of *Anectochilus*, dwarf growing Orchids, whose attractiveness lies in their velvety foliage, which is most beautifully marked with delicate tracery. *Javanicus* has large velvety green leaves, streaked with silver, *intermedius* has pale yellow lines upon a dark brown leaf, while *Lowi* has dark green leaves, marked with a delicate tracing of pink. It is a pity that these charming plants now find so few cultivators, for when well grown no other hot house plant can show such a perfectly beautiful leaf.

There is a splendid collection of Palms and Tree Ferns in this nursery, as the accompanying illustration of the large Palm house well shows. Other houses are filled with such an extensive collection of stove and greenhouse plants that it would be difficult to name anything of value that is wanting, more especially among those plants whose chief value lies in their attractive foliage. One of the finest plants we saw was *Dracena Victoria*, with handsome leaves, yellow near the margins, and green in the centre. *Hydrangea nivalis*, with green, white-centred leaves, is another plant of distinct value to the decorator. *Gloriosa grandiflora*, with lemon-coloured flowers, is a charming hot house climber, not of such gorgeous colouring as the better-known *G. superba*, but quite as attractive, despite its less brilliant colouring. We saw plants of *Bougainvillea Maud Chettleburgh*, probably the finest *Bougainvillea* in cultivation. It is remarkable for its very large, rich rose-coloured bracts. These and many other stove and greenhouse plants of decorative value are grown in Messrs. William Bull and Sons' nurseries at Chelsea.



PALMS AND TREE FERNS IN MESSRS. W. BULL AND SONS' NURSERY, CHELSEA.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, W.C. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

Legal Points.—We are prepared to answer questions of law which have anything to do with the subject of gardening and forestry. The questions should be as clear and explicit as possible, so that there can be no doubt as to the point of the question. Answers will be found in a separate column headed "Legal Points."

FLOWER GARDEN.

PHYTOLACCA (F. W.).—The plant you send is *Phytolacca icosandra*. It may be grown in almost any kind of soil, for it is not at all fastidious. Perhaps a half-shady rather moist situation suits it best. It is hardly suitable for planting in the flower garden border, but looks best when placed in the wild garden near the woodland, or, in fact, anywhere on the outskirts of the flower garden proper. *Phytolacca decandra* is better known and is a more vigorous plant, growing some 8 feet to 10 feet high.

SEEDS OF PERENNIALS (Toby).—Quite a large number of perennials, even if sown now, would not germinate before March or April next, and would therefore only be small plants ready for planting out in the June following. An exception is found in *Coreopsis* and *Gaillardia*, perhaps, and such low-growing things as *Aubrietia*, *Alyssum*, *Cheiranthus*, *Saponaria*, &c., all of which are quick to vegetate when fresh seeds are sown. Of annuals likely to do good service we may mention *Shirley* and other *Poppies*, *Candytuft*, *Cornflowers*, *Limnanthes Douglasi*, *Dianthus chinensis* vars., *D. Heddwigi* vars., *Eschscholtzias*, &c. Sweet Peas could be sown in January, and planted out in March would flower well, and other annuals and biennials could be hastened by early sowing and by subsequent transplanting; Sweet Sultans, for instance. You could, of course, obtain young plants very cheaply.

WINTER CHERRY (Mrs. Clarke).—To grow the Winter Cherry (*Physalis*) is quite simple. If very large specimens are desired, the seed should be sown early in March in a greenhouse, and the young seedlings, as soon as large enough, should be potted into 4-inch pots, and grown on in the greenhouse for another month or six weeks, and then planted out in a border having a warm aspect which has been deeply dug and generously manured the winter before. Supposing the greenhouse or frame not being available, it will succeed very well sown on a warm border the last week in March, and planted out in a similar border to the one mentioned above as soon as the plants are ready. This plant is a gross feeder, and must have rich soil to grow in if large and fine specimens are to be expected. We think yours have been too late planted out, and grown in too poor a soil. Those started in a greenhouse will be larger and finer than those sown and grown entirely out of doors.

GROWING IRISES (E. M. G.).—The first operation to be performed is to have the border well trenched, removing all the roots of the shrubs which have encroached. Speaking generally, a good loamy soil will suit all the kinds mentioned, although some, like the Siberian Irises, require more moisture when they are growing than the others. Manure should not be given,

and if the soil is poor some of it should be taken away and a quantity of fresh loam worked in. After the border is ready the best way of planting the various kinds would be in groups of irregular size and shape, with the taller kinds at the back and the dwarfier kinds towards the front. The taller of those mentioned would be *I. sibirica* and *I. germanica*, with *I. anglica* and the Spanish coming next. In front would come the dwarfier kinds, like *I. pumila*, *I. chamæiris*, *I. balkana*, and their many varieties. Some of the forms of *I. pallida* like *I. p. dalmatica* would do at the back, while for the middle there are many lovely forms of *I. variegata*, *I. amœna*, and *I. neglecta*. Lime in the shape of mortar rubbish is beneficial to most Irises, and may be used freely, and if the plants are attacked by a disease which causes the plants to rot near the ground level, fresh lime should be scattered over the ground round about the plant.

Lilium.—Some Lilies are stem rooting and some root only from the bulb. Unless we know which sorts you have we cannot tell you how deeply to plant them.

A. E. Wynyard.—A quick-growing climber that would suit your purpose is *Polygonum baldschuanicum*, of slender, graceful growth and bearing small white flowers.

Sidcup.—Liliums are best planted early, before the leaves fall. They do best, however, when left undisturbed for years. To transplant Lilies frequently is to court failure.

E. A. Dickson.—You will obtain better plants by sowing seeds now of *Nigella Miss Jekyll* than by waiting until the spring; in fact, several annuals may be treated thus. Many people sow Sweet Peas in autumn and again in spring, so as to have a succession of bloom in the summer.

H. J.—Good annuals are *Linum grandiflorum rubrum*, *Lavatera rosea splendens*, annual *Chrysanthemums* in variety, Sweet Peas in many varieties, *Calendula* (Marigold), *Coreopsis*, *Cosmos*, *Lupin*, *Malope*, *Mignonette*, *Clarkia*, *Nigella*, *Poppies*, *Phacelia*, *Scabious*, and *Schizanthus*.

G. A. Burton.—With respect to the Yucca cutting you speak of, it is rather hard treatment for it. It should have been put in a close frame for a time, although it will probably root all right, but take a long time to make a plant under the present conditions. In dealing with the other shoot you speak of, it would be advisable to bank up some soil around the base of the stem high enough to cover part of the shoot.

TREES AND SHRUBS.

PLANTS IN TUBS (Bowes).—For furnishing your tubs you may, if you wish, have three *Rhododendrons*, which are quite hardy, and, moreover, they are evergreen. Three good varieties are *Cunningham's* (white), *Everestianum* (lilac), and *Michael Waterer* (rich rose red). Of evergreen shrubs other than *Rhododendrons* there are *Berberis Darwini*, orange yellow, May; *Choisya ternata*, white, May; and *Viburnum Tinus*, white, autumn and winter. If you do not mind deciduous shrubs you have a considerable choice, but we do not think the following three can be improved upon. *Hydrangea paniculata grandiflora*, whitish, late summer; *Philadelphus Lemoinei*, white, end of June; and *Spiræa japonica (callosa)*, deep pink, July. A further choice remains, which may, perhaps, give you the greatest amount of satisfaction, and that is plant your tubs with standard Lilacs, choosing such sorts as *Marie Legraye*, pure white; *Souvenir de Ludwig Spath*, deep purplish red; and the double bluish lilac-coloured *Leon Simon*.

As the plants are to remain in the tubs for years the soil is a most important consideration. A suitable compost may be formed of two parts good turfy loam to one part leaf-mould, and a little well-decayed manure and rough sand. As the tubs get full of roots a little weak liquid manure about once a fortnight during the growing season will be beneficial.

Doubtful.—Plant the Austrian Pine; it is an excellent shelter tree.

W. W. T.—Try *Berberis Darwini* and *B. vulgaris*. They are both beautiful shrubs, and are easily grown.

W. Deakin.—For planting under the shade of trees Ivy is good; so are *Euonymus radicans variegata*, *Periwinkle*, and *St. John's Wort*.

J. S. Abbott.—You might cover your fence very attractively with *Forsythia suspensa* and *Jasminum nudiflorum*, both of which flower in early spring, and *Weigela rosea*, which flowers later.

Wanstead.—Plant the Sea Buckthorn (*Hippophaë rhamnoides*); it is very handsome when bearing a good crop of its orange-coloured berries, and will succeed in the position you name.

H. T. Le Clerc.—We are afraid the only thing to do is to thin out the weakly branches and remove some of the surface-soil round the stem of the old Thorn, replacing with rich, fresh soil.

E. W. E.—The plant probably meant is *Helianthemum*, which represents a somewhat large genus of low-growing shrubs of mostly creeping or prostrate habit. Those mostly in cultivation are forms of our native *H. vulgare*. Of this plant, which is called the Rock Rose, there are numerous varieties, both single and double, and of various colours, ranging from yellow to copper colour and crimson. They are all of prostrate growth, forming large carpets, with matted branches, covered in summer with a profusion of flowers. There are other more erect-growing species of *Helianthemum*, like *H. umbellatum* with white flowers. They may be obtained in variety from any hardy plant nurseryman.

A. A.—*Prunus myrobalana*, often known as *P. cerasifera*. It may be struck fairly well from cuttings taken when quite dormant, say, in the month of November. The cuttings should be formed of moderately stout wood, from the thickness of a straw to that of a pencil. They must, with a sharp knife, be cut off immediately below a joint, and should be made about 1 foot long. A well-dug bed of sandy soil without any manure is very suitable for the cuttings, which must be inserted at such a depth that three parts of the length is buried, as by so doing they are but little affected by frosts in winter. The soil around the cuttings must be made very firm. By stating the thickness of the shoots required to form the cuttings, you will understand that the top portion of the shoot is too thin and immature for the purpose.

ROSES.

GLOIRE DE DIJON PLANTS FAILING (J. A. L.). The foliage shows signs of black spot, a disease very prevalent this year. It appears to attack plants without any known cause, but, in our opinion, it is the result of too much manure. Perhaps the liquid given was too strong. Defective drainage has also proved to be responsible for this fungus. We should advise you to give the plants a good pruning next spring, cutting away the sickly-looking shoots, then have some lime forked into the border. The want of thinning out the shoots has induced a weakly growth. It is a good plan, when dealing with these fast-growing Roses, to cut down right to the ground one or more of the oldest growths every year. This induces the plant to break out at the base, and consequently some thrifty new shoots result. If you fear the drainage is bad, you could undermine the roots in November, taking care not to go too near, and then place some old rubble or clinkers beneath, so that the roots are prevented from penetrating to the cold clayey subsoil.

E. E. Whyte.—The best white climbing Rose is generally admitted to be *Mme. Alfred Carrière*.

B. R.—The long shoots ought to be shortened, but it depends entirely on the use for which the Roses are planted. You do not say whether they are standards, dwarfs, or climbers.

Rosa.—Good Roses for a hedge are *Conrad F. Meyer*, *Penzance Briars* (various), *Sweet Briar*, *Mme. Berard*, *Gloire de Dijon*, *Félicité Perpétue*, *Flora*, *Reine Marie Henriette*, and others.

Mrs. Hardwicke.—You should try some of the vigorous *wichuraiana* Roses, such as *Dorothy Perkins* and *Alberic Barbier*. They make growths of wonderful length in one season, and quickly cover a fence or bank.

Gretna.—Roses which are very fragrant are *Cabbage Roses*, *A. K. Williams*, *Charles Lefebvre*, *General Jacqueminot*, *Alfred Colomb*, *Augustine Guinoisseau*, *La France*, *Louis van Houtte*, *Magna Charta*, *Mrs. John Laing*, *Gloire de Dijon*, &c.

FRUIT GARDEN.

PLANTING FRUIT GARDEN (B. B.).—If the land has not been cultivated before, the best thing to do is to have it trenched 3 feet deep all over. This is important, and especially as you wish to plant fruit trees. We should advise you to begin the trenching at once, and then leave the soil roughly turned up during the winter, so that it may be acted upon by frost and air. These agencies do a great deal of good to soil roughly dug up. A thoroughly good dressing of farmyard manure should be dug in the land also, placing it upon the top of the second spit of soil, that is, about 1 foot below the surface. Visit a good fruit tree nursery and select the plants now, to be delivered in spring. Plant bush Apple trees, pyramid

Pear trees, and standard Plum trees. You may, if you wish more variety of form, have some espalier Apple trees and bush Plum trees. Dessert Apples: Mr. Gladstone, Lady Sudeley, Margil, King of the Pippins, Cox's Orange Pippin, Ribston Pippin, Allington Pippin, Cockle's Pippin, Claygate Pearmain, Lord Burghley, Sturmer Pippin. Cooking Apples: Pott's Seedling, Stirling Castle, Ecklinville Seedling, Bismarck, Blenheim Orange, Lane's Prince Albert, Wellington, Newtown Wonder, Northern Greening. Dessert Pears: Williams' Bon Chrétien, Fondante d'Automne, Marguerite Marrillat, Michaelmas Nelis, Louise Bonne of Jersey, Thompson's, Marie Louise, Beurré Superfin, Doyenné du Comice, Beurré de Jonghe, Winter Nelis, Josephine de Malines, Duchesse de Bordeaux. Stewing Pears: Vicar of Winkfield, Catillac. The above are arranged in order of ripening. Dessert Plums: Coe's Golden Drop, Reine Claude de Bavay (suitable for bush), Oullin's Golden Gage, Late Transparent Gage, Early Transparent Gage, Greengage, Kirke's, Jefferson, Bryanstone Gage, Denniston's Superb, Late Orange. Cooking Plums: Belgian Purple, Diamond, Monarch, Pond's Seedling, Primate, Rivers' Early Prolific, Victoria, White Magnum Bonum.

VINE ROOTS (L. E. T.).—You cannot expect to grow good Grapes in a sandy soil. We do not think the mulch of manure could have done harm to the roots. If you used strong, undiluted liquid manure, and not a mulch of littery manure, then it is more than likely the roots would be damaged. In a light sandy soil the manure would be more likely to burn them than in a heavier soil. If the mulch was of strong, heavy manure, the liquid washed through to the roots from it might have caused the roots to decay. Your Vines will never be satisfactory if you do not give them a better soil. Dig a trench about 5 feet away from the stems, and fork away some of the soil until you come to good fibrous roots. Replace with turfy loam. Remove the surface soil also and give a top-dressing of turfy soil.

DAMSONS AND FILBERTS (L. T. S.).—If your desire is to form a combined Damson and Filbert hedge for shelter purposes, plant the Damsons (standards) on 6 feet clear stems, 8 feet apart, putting a Filbert bush between each. Of course, in a short time the two fruits will develop into a dense hedge some 12 feet in height; but the fruiting capacity of the kinds will be materially diminished as the trees and bushes age. If you prefer to plant to have the shelter yet to have good fruiting trees and bushes for many years, plant the Damsons 12 feet apart in a row, and the Filberts 8 feet apart in another row some 10 feet behind the Damsons. So much depends on the special object you have in view. In the Kentish orchards it is the rule to plant the hardy Crittenden Damson on the windward sides of the orchards in one or two rows from 10 feet to 12 feet apart, as these trees suffer less from wind than other fruit trees.

Wareham—See reply to "J. W. S." below on this subject.

Rhoda—The Wise Apple is the popular name given to Apple Court Pendu Plat, which usually flowers late, and so escapes the spring frost.

A. A. Fleming.—Your Strawberry plants should have been planted not later than September, so as to become established before winter. Rather plant them now than wait until spring.

X. Y. Z.—You have evidently been pruning your Apple trees too much. Leave the leading growths alone if they are strong; shorten them if they are weak. Thin out the spurs if these are too numerous; light and air cannot penetrate to the branches.

J. W. S.—The strong shoots made by your Plum trees indicate the need of root-pruning. It is no use cutting back these gross shoots; this simply induces strong shoots again. By restricting the most vigorous of the roots you create fruitful growths of moderate vigour. See THE GARDEN for October 14.

C. H.—The leaves of the Melon sent are suffering from the disease commonly called the Cucumber spot, a fungus which of late years has caused such destruction to this plant among market growers. The Melon and Cucumber are closely allied, being of the same family, and are more or less subject to the same diseases. So far there is no known cure for this disease, but as soon as indications of its presence on the plants are perceived the air of the

house should be kept dryer, and more ventilation given. This treatment prevents its spreading so quickly, and gives the grower an opportunity of finishing off his crops before the plants are destroyed by it. Be careful to burn all the leaves and stems, and not to use the same soil again for Cucumbers or Melons, also to burn sulphur in the house or frame where it has been growing, so as to kill any of the mycelium which may have attached itself to any portion of the woodwork, &c.

KITCHEN GARDEN.

CARROTS SPLITTING (R. J. H.).—The common cause of splitting or cracking in roots and in fruits appears to be the same—a check, even for a brief period, caused by dryness of soil, which stops sap action. Then comes a heavy rain or an over-abundant watering, if plants be under glass, causing with warmed soil sudden and energetic root action. The quantity of sap or moisture suddenly taken up is greater than roots or fruits can well utilise all at once, and bursting of the skins or coats very commonly results. The Early Gem Carrot, sample of which is sent, is a variety that should be pulled and eaten whilst half the size of the roots you supply, and when young and tender.

WHITE FLY (Tomato).—The white fly preys only on the sickly and weak. To get rid of it, the best way is to burn sulphur in the house as soon as it can be emptied of plants. The hot sulphur fumes after two applications—one in the early evening and one in late evening—will destroy all living organisms there may be there. The house must be closed, of course, and filled with fumes as quickly as possible, and not be opened again for a couple of days. Should this fly attack the Tomatoes again next year, you should use Richards' XL All Vaporiser, which may be had of all seedsmen. We should advise you to grow your first crop of Tomatoes in 12-inch pots, raising them to a position near the glass at first, and lowering them by degrees as the plants grow in length until they ultimately rest on the floor. It will be an easy matter to take two good crops from a house like this in the course of the season, planting the first crop early in March. This would be over early in July, when another set of strong plants should be immediately planted, this time without pots, in a border on the floor of the house, having previously laid down a bed of leaves and manure about 1 foot deep for the soil to rest on.

T. J. Hall.—You may lift and pot the Seakale roots, putting four or five good crowns in a pot of 9 inches diameter; plunge this in a bottom heat of 70° or 80° Fahr.

Harold Wyman.—The cause of your Potatoes not decaying is probably owing to their having been planted late, and dry weather afterwards hardening the tuber. We have heard of other similar instances this year.

GREENHOUSE.

CULTURE OF STAPELIA (J. W. C.).—The flower sent is one of the Stapelias, most probably *S. bufonia*, or *variegata* as it is now called, but we cannot confidently say, for the flower is much shrivelled and the genus is an extensive one, consisting as it does of over sixty species, many of which are not now in cultivation. Nearly all are natives of South Africa, and in this country require the protection of a greenhouse for their successful culture, with a dry atmosphere during the winter months. They are not deep-rooting subjects, hence the pots in which they are grown must be well drained. A suitable compost is good loam and sand, with a little brick rubble broken small. From the beginning of June to the end of August they may be placed in a cold frame facing south, plenty of air being given at all times. The best position for them in the winter is on a shelf near the roof glass in a house where the temperature ranges from 50° to 65°. From November to March they require no water. When repotting is needed it should be done about the middle of April. Stapelias are often known as Carrion Flowers, from the unpleasant odour of their blossoms, but for all this they are very interesting. One species, *S. gigantea*, claims a place among the wonders of the vegetable

kingdom, as the comparatively huge blossom is shaped like a five-pointed star, a foot or nearly so across, and the marking is equally strange.

FLOWERS FOR GREENHOUSE (Nemo).—In a small structure, particularly when associated with other plants, Roses give a great deal of trouble from their liability to be attacked by green-fly, mildew, etc. In a temperature of 45° to 55° in the depth of winter you will be able to keep bedding Pelargoniums and other plants used for the same purpose, such as Fuchsias, Heliotrope, Petunias, Verbenas, tuberous Begonias, &c. In the spring it will be available for sowing tender annuals, such as Asters, Balsams, Celosias, and numerous other plants. When the bedding plants are turned out there is a wide choice of subjects to keep up a display during the summer, particularly worthy of mention being Fuchsias, Cannas, Lantanas, Lilies, Abutilons, tuberous Begonias, Impatiens, &c. If you have any spring-flowering bulbs potted, they may, when thoroughly rooted, be taken into the greenhouse, where they will anticipate their season of blooming out of doors by a considerable time. Indian Azaleas, too, form a bright feature in spring, while the hardy Azaleas are also very effective under glass at that season.

Wanderer.—The plant you refer to is *Lonicera sempervirens* minor, a beautiful greenhouse climber.

Farleigh.—Try the Chinese Sacred Narcissus in bowls filled with fibre; it is easily grown, and is most attractive in spring when in flower.

H. J. C.—The two most important points to bear in mind in wintering Geraniums are to keep them frost-proof and to give them very little water.

A Constant Reader.—Both the *Chrysanthemums* and *Geraniums* are badly attacked by rust. The best thing to do is to isolate, if possible, the attacked plants, then syringe them with a solution of potassium. This is made by dissolving 1 oz. of sulphide of potassium (liver of sulphur) in a quart of hot water, diluting it with two and a-half gallons of water. The plants should be syringed with this every ten or twelve days till the rust disappears. Previous to syringing the worst leaves should be picked off.

MISCELLANEOUS.

BOILER (Nemo).—A perusal of the advertising pages of THE GARDEN will show several boilers suitable for the heating of such a structure as that named by you, whether you prefer ordinary fuel, gas, or oil for the purpose. Two 3-inch flow and return pipes around your house should be sufficient, but before advice can be given as to the position of the boiler and arrangement of the pipes it will be necessary to know the lie of the land, position of the door, &c. Your better way will be to make a plan of your house and submit it to a reliable firm or firms such as those which advertise in THE GARDEN, who would then forward an estimate for the exact cost, founded on personal inspection, if not too far away.

SULPHUR VAPORISER FOR MILDEW (J. E.).—The makers of this valuable invention are the executors of Robert Campbell, Water Street, Manchester, and it can be obtained through any of our well-known sundriesmen. It is a most simple invention, sulphur being vaporised by means of a spirit lamp. When the sulphur boils it is given off in the form of steam, and upon every particle of the foliage a dew is lodged which kills the fungus. It is useful for Tomato disease and other fungoid attacks, and any handy man can work the apparatus. The vaporiser is not recommended for insect pests, but it considerably checks red spider if the vaporising be done upon two consecutive evenings and then the foliage well syringed next morning.

Gardener.—Plants, fruits, and vegetables all vary so much in their respective food requirements that it is not possible to indicate any one form of artificial manure that would satisfy all of them. If you were to purchase phosphate in the form of bone-flour, potash in muriate of potash, and nitrogen in sulphate of ammonia, and combine these elements in equal proportions, then were to dissolve 1 lb. in ten gallons of water, you would find you had a most excellent liquid manure. If you care to add soot to your manure mixture, you can do so with advantage; it is an ingredient which, well dissolved, seems to suit all kinds of plants or vegetables as manure. Iron, except in an infinitesimal form, is not a desirable ingredient in soil or manures. You ask, Why do plants take up diverse substances in varying proportions if not needed? Generally plants do not take up substances they have no use for, but, in taking up needful substances, probably some that they do not need or are deleterious become mixed with them. When plants, trees, or other things go wrong, it very commonly arises from the absence of proper food in the soil or the presence of something that is harmful, such as excess of iron or lime or something else. We are constantly dealing with Pests in our ordinary articles. We should not like to advise the making of liquid manures by homeopathic doses; the risk of overdoing would be too great. Your best way would be to sprinkle a pinch of the mixture we have described over the roots of the plants once a fortnight, and let the ordinary waterings wash it in.

W. A. W.—Such a thing not infrequently occurs in soils of a peaty nature, in which Couch Grass will grow rampantly. We have just been speaking to a Lincolnshire farmer, and he states that he has seen Couch Grass running through quite large bulbs and boring its way through Mangel Wurtzel.

Enquirer.—"Handbook of the Amaryllideæ" (1888), by J. G. Baker, F.R.S. Published by George Bell and Sons, York Street, Covent Garden. This book gives full descriptions of all plants belonging to this order, with their native habitats, &c., and also references to figures of the different species. It does not deal with the cultivation of the plants in any way.

Dutwich.—The sample of slag soil sent—for it cannot well be termed manure—is apparently of little value except as soil; were it added largely to clay soil, no doubt it would materially improve its texture. It would also very likely make an excellent dressing for lawns. If you use it for bulbs, as you suggest, do so only partially, lest there be in the soil anything harmful, but we entirely fail to detect anything with customary tests. If it be only ordinary coal clinker, crushed up fine, then it is worthless as a manure.

E. G. L.—You have evidently used far too much bay salt. There should only be a very thin sprinkling between the layers. It should also be baked in an oven before using to dry it well. The rose petals should be picked in the early morning and spread on paper to dry. When quite dry they should be stored in layers in a jar as recommended, sprinkling bay salt between the layers. When all the rose petals are used the jar should be closed down for three weeks or so, and then well stirred with a stick. Thyme, Sweet Marjoram, Rosemary, Bay, Sweet Verbena, Violets, and Orange Flowers are often added with good results. Later loz. Orris root (sliced), loz. benzoin, loz. Florax and Cloves may be added, and the whole well stirred.

NAMES OF PLANTS.—**S. W.**—*Cytisus canariensis* (hardy).—**Emily D. Walsh.**—1, *Astrantia* major; 2, *Nepeta Mussini*; 3, *Cheiranthus mutabilis*; 4, *Acena inermis*.—**J. F. Pomfret.**—1, *Spirea filipendula*; 2, *Chrysanthemum Balmata*; 3, *Aspidium falcatum* Fortune; 4, *Pteris* sp.; 5, *Adiantum cuneatum* grandiceps.—**F. H. D.**—*Helenium atropurpureum*.—**Foreman.**—*Fuchsia procumbens*.—**Wm. E.**—The small tree is *Eucynimus europæus* (the common Spindle Tree).

NAMES OF FRUIT.—**F. H. D.**—The big Pear is Pitmaston Duchess; the round one is Gansel's Bergamot; the brown one is a small fruit of *Burré Bosc*. Please always number specimens for naming. The Apples are too poor to name; they are evidently very small fruits of a cooking sort. The Pears are misshapen through the frost and cold winds prevalent in the spring.—**A. C.**—4, Clapp's Favourite; 5, Louise Bonne de Jersey; 6, *Burré d'Ananlis*; 6, a late fruit of *Jarzonelle Pear*.—**J. Ward, Coventry.**—1, Gravenstein; 2, Emperor Alexander.—**S. Barden, Newark.**—*Pear Marie Louise*.—**W. Robinson, Garslang.**—1, Belle Julie; 2, *Burré Die*; 3, *Comte de Lamy*; 4, *Souvenir du Congrès*.—**S. Crane, Notts.**—1, *Josephine de Malines*; 2, *Citron des Carmes*; 3, *Burré Bachelier*; 4, *Maréchal de la Cour*; 5, *Burré Superfin*; 6, *Louise Bonne de Jersey*; 7, Belle Julie; 8, *Doyenné du Comice*; 9, rotten.—**W. T. Hunter, Worcester.**—1, *Duchesse d'Angoulême*; 2, Thompson's; 3, Catillac.—**F. Boyers, King's Norton.**—13, *Burré Bachelier*; 16, *Porch's Burré*; 22, *Burré d'Anjou*; 25, *Olivier des Serres*; 26, *Burré Die*; 30, *Josephine de Malines*; 36, Thompson's Pear.—**Nemo.**—1, 2, and 4, Braddick's Nonpareil; 3, Court of Wick; 5, Highlandry; 6, Bess Pool. Pears: 1, Winter Nells; 2, Marie Louise d'Uccio; 3, *Burré Hardy*; 4, *Doyenné du Comice*; 5, *Burré Superfin*.—**G. Shaylor.**—1, *Reinette du Canada*; 2, Court of Wick; 3, Court Pendu Plat. The flower is Tanacetum vulgare.—**Pomona.**—*Pear Pitmaston Duchess*; 1, a local variety, probably a seedling from Tom Putt; 2, Margil.—**Tilston.**—The fruit is the Quince.—**Dr. Little.**—Apple Adam's Pearmain.

CHRYSANTHEMUM SHOWS.

At most of these autumn exhibitions fruits and vegetables are also largely shown.

October 31.—Southampton (two days).
November 1.—National Chrysanthemum Society's Show (three days); Cambridge (two days).
November 2.—Torquay.
November 3.—Windsor, Eton, and District.
November 7.—Birmingham (three days); Brighton and Sussex (two days); Croydon (two days); Ipswich (two days); Belfast (two days).
November 8.—Cardiff (two days); Ware (two days); Stoke Newington (two days); Bath Gardeners' Show (two days).
November 9.—Addlestone, Chertsey, and Ottershaw; Gainsborough and District (two days).
November 10.—Sheffield (two days); Nottingham and Notts (two days); Huddersfield and District (two days); Stockport (two days); Bush Hill Park (two days).
November 14.—Winchester (two days); South Shields and Northern Counties (two days).
November 15.—York (three days); Chester Paxton (two days); Liverpool Horticultural Association (two days).
November 16.—Scottish Horticultural Association (three days); Bristol (two days); Norfolk and Norwich (three days).
November 17.—Bradford (two days); Bolton (two days).
November 21.—Leeds Paxton (two days).
November 24.—Darlington.
December 6.—National Chrysanthemum Society's Show (two days).

LEGAL POINTS.

REMOVAL OF FRUIT TREES (A. E. A.).—Your right to remove the fruit trees depends upon the nature of your holding: (1) If you occupy an ordinary house and garden you cannot remove the fruit trees; (2) if your holding is either wholly agricultural or pastoral, or partly agricultural and partly pastoral, you are entitled, under the Agricultural Holdings Acts, to compensation for orchards or fruit bushes, provided that the same were planted by you with your landlord's consent in writing. The compensation allowed is to be the fair value of the improvements to an incoming tenant, but the outgoing tenant is to receive nothing in respect of what is due to the inherent capabilities of the soil. Where an incoming tenant has, with the consent in writing of his landlord, paid to an outgoing tenant any compensation payable under the Act, the incoming tenant will be entitled, on quitting the holding, to receive from his landlord the same compensation as the outgoing tenant would have been entitled to receive had he remained as tenant until the time when the incoming tenant quits the holding, thus: If A, the incoming tenant, with the consent of B, the landlord, compensates C, the outgoing tenant, for improvements, A will be entitled, when he gives up possession, to claim from B the same compensation in respect of the improvements as C would have been entitled to receive had he remained as tenant until the date of the expiration of A's tenancy. (3) If your holding has been let or treated as a market garden, you will be entitled, under the Market Gardeners' Compensation Act, to move all fruit trees and fruit bushes planted by you and not permanently set out; but they must be removed before the termination of your tenancy, otherwise they will become the property of your landlord. You will also be entitled to compensation under the Agricultural Holdings Acts in respect of the improvements mentioned below, notwithstanding that such improvements may have been made without the consent of your landlord, viz: (a) Planting of standard or other fruit trees or fruit bushes permanently set out; and (b) planting of Strawberry plants, Asparagus, and other vegetable crops. (4) If you occupy a piece of land, with or without a cottage, containing not more than two acres, and cultivated as a garden or farm, you will be entitled to compensation from your landlord for crops, including fruit, and for fruit trees and fruit bushes planted by you with your landlord's consent in writing.

Royal Botanic Society of London.

The valuable collection of succulent plants made, during his travels abroad, by the late Rev. H. G. Torre of Norton Curliem, Warwickshire, has been presented to the Royal Botanic Society. It comprises some 1,600 specimens of the most ornamental of the class, such as Agaves, Aloes, Echeverias, Crassulas, and Mesembryanthemums. The rockery in the large conservatory has been reconstructed for their accommodation and display.

Presentation to Mr. P. M'Hardy, Aberdeen.

—On the evening of the 14th inst. a presentation was made in the Bon-Accord Hotel, Aberdeen, by a number of the local gardeners and others in the adjoining districts to Mr. Peter M'Hardy, of the firm of Messrs. Ben Reid and Co., Limited. Mr. M'Hardy acted as secretary of the highly successful excursion arranged for the benefit of the Aberdeen gardeners on the occasion of the recent International Show in Edinburgh, and his services were so much appreciated that it was resolved to make him a present in recognition of his good work. This took the form of a handsome travelling bag and umbrella. The presentation was made by Mr. James Smith, Glenburnie Park, who made a neat little speech in handing over the gifts. Mr. M'Hardy made a suitable reply.

An enjoyable social evening was afterwards passed, a number of excellent songs being rendered by members of the company.

SOCIETIES.

WOOLTON GARDENERS' SOCIETY.

A MEETING was held on the 5th inst. at the Mechanics' Institute, Mr. J. Guttridge, curator of Liverpool Botanic Gardens, occupying the chair. There was a good attendance to welcome Mr. C. R. Paul, Royal Botanic Gardens, Manchester, who gave an excellent lecture on exotic Ferns. A long discussion followed, in which the chairman, Messrs. W. W. Gamble, E. Todd, H. Corlett, J. Stoney, W. D. Skinner, and others took part. At the conclusion a hearty vote of thanks was tendered to Mr. Paul for his excellent lecture, on the motion of Mr. G. Haigh, and a similar vote to the chairman on the motion of Mr. Gamble.

BURY GARDENERS' SOCIETY.

THE second session of this society was opened on the 5th inst. at the Textile Hall, Mr. J. Southern presiding over a large attendance. The subject for consideration was "Soils and Their Treatment," by Mr. E. G. Waterman of Woolton. Draining, trenching, and ridging were stated to be necessary on heavy lands, and the use of clay and strong loam on those of a light nature. Manures, natural and artificial, were fully dealt with. Rotation of crops was briefly considered for the purpose of increasing the quantity and quality of produce and for reducing the strain upon the land. The paper was followed by a discussion, in which several members took part, after which a cordial vote of thanks was tendered to Mr. Waterman for his practical advice on this important subject.

CARDIFF GARDENERS' ASSOCIATION.

THE opening of session 1905-6 took place at the Sandringham Hotel, Cardiff, on Tuesday, the 3rd inst., and was presided over by Mr. F. G. Treseder, F.R.H.S. Mr. Shaddick, representative of the Bristol Gardeners' Association, delivered an instructive lecture upon "The Treatment for Croton Culture," and the discussion was enthusiastically taken up by the large number of members present, and after replying to various questions, the best thanks of the assembly were accorded the lecturer. A special prize of 5s. was offered by Mr. R. Mayne for the best two dishes of dessert Pears and the same of Apples, and was awarded to Mr. J. Dinwoodie, head gardener, The Duffryn, Glamorganshire. For a dish of Pears (Catillac), five fruits, the premier Pears weighing 27oz., he was awarded a first-class certificate. For a fine plant of Orchid Miltonia candida Mr. R. Mayne was awarded a first-class certificate, and for four dishes of Apples Mr. C. E. Collier was awarded a second-class certificate. Several new members were enrolled, and the meeting terminated. Mr. T. Clarke, ex-chairman, met with a serious trap accident a fortnight ago whilst driving to Cardiff, but his many friends will be glad to learn that he is progressing favourably.

CHRYSANTHEMUM SHOW AT THE HORTICULTURAL HALL.

AN exhibition was held at the Royal Horticultural Society's Hall, Westminster, on Saturday, the 14th inst., by the Evening News Chrysanthemum League. The proprietors of this paper distributed about 7,000 plants among the children of London and suburbs early in the year. These were to be grown for competition. Some of the plants were fairly well grown, but the majority of them were very poor, and most of them were only in bud. The show, however, was a really good one, for most of the leading growers put up groups. The most remarkable feature, however, was the attendance. Never before has such a crowd been seen. Upwards of 25,000 persons gained admission, and it was estimated that more than 10,000 went away without being able to gain admittance. Among those who sent groups were Messrs. Wills and Segar, Carter and Co., Cutbush and Sons, T. S. Ware, Hobbies, Limited, H. Evans and Sons, H. J. Jones, Wells and Co., Limited, Norman Davis, E. Such, P. Ladds, L. E. Russell, J. Hill and Sons, and Cragg, Harrison, and Cragg. In addition to which, fruit was well shown by Mr. Poupart of Twickenham and Messrs. Shearn and Son, Tottenham Court Road. Upstairs there was a display of table decorations and other floral arrangements, also Colonial exhibits and some interesting works of art from Japan. The whole arrangements were well carried out. It is proposed to hold a similar show next year, and it is probable that Olympia will be chosen as the place of exhibition.

KIDDERMINSTER HORTICULTURAL SOCIETY.

THE annual meeting of the members of the Kidderminster and district Horticultural Society was held recently, Dr. Gibbins presiding over a good attendance. Apologies were read from Mr. W. Piercy Snow and Mr. A. Goodwin; the latter stated that his increased business duties prevented his devoting the necessary time to the work of the society, and he resigned his seat on the committee. The balance sheet showed total receipts £129 9s. 7d., including a balance in hand of £27 12s. 1d., and the expenditure left a balance in hand of £33 7s. 3d.

Dr. Gibbins, in moving the adoption of the report and balance sheet, said it was a source of satisfaction that the society had had such a successful season. The exhibitions

had been eminently successful. He acknowledged the strenuous services rendered to the society by Mr. Clark, who was now leaving the town, having secured a well-earned promotion, and expressed much regret at the announcement made by Mr. Sadler that he would not be able to continue in the office of secretary. Mr. Sadler had been untiring in his labours. He also regretted to say that he could no longer continue as chairman of the committee, for he was not able to devote as much time to the work as the position demanded.

Dr. Gibbins said the promise of Katherine, Duchess of Westminster, to visit Kidderminster and open the Chrysanthemum show in the Town Hall on November 8 would give great delight. The exhibition would be held on November 8 and 9.

On the proposition of the chairman, Sir A. F. Godson, M.P., was elected president for the ensuing year, and the thanks of the meeting were tendered to him for past services.

Mr. Sadler acknowledged references to his services by the chairman and the meeting. It would ever be a satisfaction to him to know that he was leaving the society with a good balance in hand—£30 more than when he took the office.

Mr. Beesley moved and Mr. Bulmer seconded the appointment of Mr. Pitt, and the motion was approved *nem. con.*

ROYAL HORTICULTURAL SOCIETY.

THERE was a pretty show of Chrysanthemums, Orchids, and other flowering plants and some exhibits of fruit at the meeting held on Tuesday last, the 24th inst., but the vegetable show which was held in connexion with this meeting was very poor. The Orchid committee, the floral committee, and the fruit and vegetable committee each granted several awards of merit.

FRUIT AND VEGETABLE COMMITTEE.

Present: Mr. George Bunyard (chairman), Messrs. John Wright, Joseph Cheal, W. Bates, J. McIndoe, S. Mortimer, A. Dean, William Pope, H. Parr, William Fyfe, H. J. Wright, George Kelf, H. Somers Rivers, W. H. Divers, G. Reynolds, Edwin Beckett, John Lyne, F. Q. Lane, J. Jacques, G. Norman, J. Willard, Owen Thomas, C. Foster, W. Poupert, and A. H. Pearson.

Messrs. Hugh Low and Co., Enfield, exhibited a collection of Apples and Pears that contained some excellent fruits of the best varieties now in season. Silver Bankian medal.

A collection of unnamed seedling Melons was shown from the Horticultural College, Swanley, Kent. They were chiefly of the Hero of Lockinge type. They were very attractively set up. Silver Banksian medal.

M.M. Vilmorin-Andrieux et Cie, Paris, exhibited a collection of yellow flesh Potatoes in several different varieties, most of them of medium size. They were varieties which are little known in this country.

A new vegetable, the result of a cross between Winningstadt Cabbage and Cambridge Champion Brussels Sprouts, was shown by Mr. J. H. Ridgwell, The Gardens, Histon, Cambs. The plants produce fine large Cabbages, and at the base of every leaf large buttons are formed, so that after cutting the Cabbages a good crop of firm large buttons may be gathered.

Several new Apples and other fruits were shown, but no awards were made.

An award of merit was given to each of the following Potatoes, after trial at Wisley: *The Gardener* (Sinclair, 156, Union Street, Aberdeen); *Dalhousie Seedling* (Kent and Brydon, Darlington); *Duchess of Cornwall* (Dobbie and Co., and J. Williamson, Mallow, Cork); *Forbes' Sensation* (W. Forbes, Tullycarnett, Knock, Belfast).

Forbes' Marvel, from Mr. W. Forbes, was highly commended.

ORCHID COMMITTEE.

Present: Mr. J. Gurney Fowler (chairman), Messrs. James O'Brien, de B. Crawshaw, W. A. Binley, E. Ashworth, R. G. Thwaites, Jeremiah Colman, J. Charlesworth, Albert A. McBean, H. Ballantine, G. F. Moore, W. H. White, F. J. Thorne, J. W. Odell, H. A. Tracy, W. H. Young, W. Boxall, Harry J. Veitch, Francis Wellesley, and F. W. Ashton.

Baron Schröder, The Dell, Egham (gardener, Mr. H. Ballantine), exhibited a beautiful group of Orchids. *Cattleya bowringiana*, C. Mantini, C. labiata, C. dowiana aurea, C. wendlandiana, *Lælio-Cattleya luminosa*, and L.-C. Fausta were represented by some lovely flowers. *Odontoglossum grande* and *Dendrobium Phalaenopsis* were freely used in this group. Among the rarer things were *O. grande aureum*, *Cypripedium H. Ballantine*, C. fairrieana, *Lælia præstans alba*, *Masdevallia maculata*, L.-C. Baroness Schröder, and *Lælia Perrini niva*. *Pleione maculata* in pans was very beautiful. Silver-gilt Flora medal.

Jeremiah Colman, Esq., Gatton Park, Reigate (gardener, Mr. W. P. Bound), showed a very bright group of Orchids, comprised chiefly of *Cypripediums*, *Lælias*, *Cattleyas*, and *Lælio-Cattleyas*. *Lælia præstans* in several varieties, was very beautiful, L. p. Gatton Park variety, with slate-blue lip, being most remarkable. Among the *Cypripediums* were several good varieties of C. insignis, C. i. cobbianum, C. i. Ballie, C. i. Laura Kimball, C. i. Sanderia, and others. *Cattleya labiata cærulea* and *Phaio-Cymbidium chardwense* were two remarkable things. Silver-gilt Flora medal.

Messrs. Charlesworth and Co., Heaton, Bradford, again exhibited a splendid lot of Orchids. *Vanda cœrulea*, *Cattleya Peetersi*, C. Iris, C. Portia magnifica, C. Vulcan, *Brasso-Lælia purpurato-digbyana*, *Lælio-Cattleya luminosa*, L.-C. haroldiana, and many other beautiful things were included in this group. Silver-gilt Flora medal.

Messrs. Stanley and Co., Southgate, N., showed a bright group of Orchids, the following, among others, being

splendidly represented: *Cattleya Mantini*, C. labiata, *Odontidium varicosum*, *Odontoglossum divivarianum*, and *Dendrobium thysiflorum*. Several rarities were also included in this group. Silver Flora medal.

Sir Trevor Lawrence, Bart., Burford, Dorking (Orchid grower, Mr. White), exhibited a collection of Miltonias, M. Binotti, M. candida, M. Clowesi, and M. lamarkiana. He also showed several Orchids of botanical interest.

Messrs. Hugh Low and Co., Bush Hill Park, Enfield, showed a small group of Orchids that included *Odontoglossum Rossi albens*, *Miltonia candida grandiflora*, M. Binotti, *Cypripedium arthurianum*, L.-C. Lady Rothschild, and other good things. Vote of thanks.

Messrs. Sander and Sons, St. Albans, showed *Cymbidium gammieanum*, a natural hybrid between elegans and longifolium, with medium-sized greenish brown sepals and petals, with pale yellow lip marked with light red; *Vanda sanderiana*, with large and handsome flowers, the upper sepals and the petals lilac, the lower sepals veined with pale red-crimson on a pale yellow ground; *Miltonia candida grandiflora*; and *Cypripedium insignis* D. S. Brown. Vote of thanks.

F. Wellesley, Esq., Westfield, Woking (gardener, Mr. W. Hopkins), exhibited several hybrid *Cypripediums*, an award of merit being given to one which is described below.

Habenaria militaris was very beautiful as shown by Sir Trevor Lawrence, Bart.

J. Buchanan, Esq., Savington Park, Petworth, showed a small collection of *Cypripedium* hybrids.

Messrs. William Bull and Sons, Chelsea, showed *Cypripedium villosum* × *rothschildianum*. *Dendrobium Phalaenopsis* (dark variety) was sent by Mrs. Collingwood, Lilburn Tower, Alnwick. *Vanda sanderiana* was finely shown by Mr. F. G. Gledstanes, Berry Hill, Taplow. Lord Rothschild sent flowers of *Cattleya* × *luminosa superba*. A good plant of *Odontidium gravesianum* was shown by Mr. E. Lowther, Tindels Park, Bristol. Mr. A. E. Bainbridge, Jesmond Park West, Newcastle, exhibited *Odontoglossum grande* Lynwood variety. Several other single plants of new and rare Orchids were shown. All those given an award are described below.

NEW ORCHIDS.

A first-class certificate was awarded to *Odontidium leopoldianum*.—Although this Orchid has been for a long time in cultivation we have never seen it in flower before. The flower stem is of twining growth, and several feet in length. The flower, which is about 1½ inches deep, is purple with a white margin; the patch of yellow beneath the column adds to its beauty. The edges of the flower are crimped. From Mr. E. Ashworth, Harefield Hall, Wilmslow.

An award of merit was given to each of the following: *Dendrobium Phalaenopsis Miss Louisa Deane*.—A very beautiful light coloured form. The sepals and petals are white, and the throat and lobes of the lip are tinged with pink. Shown by Mr. G. F. Moore, Chardwar, Gloucester, (gardener, Mr. Page).

Cymbidium Magpie Fowler.—This is a natural hybrid between C. giganteum and C. elegans. The blooms are large, the sepals and petals being lined with red-brown upon a greenish yellow ground. The lip is marked with chocolate upon a yellow ground. Very sweetly scented. From Mr. J. Gurney Fowler, Woodford.

Lælio-Cattleya Clive superba.—*Lælia præstans* and *Cattleya dowiana* are the parents of this hybrid, which has a very beautiful purple lip with a splash of primrose yellow inside each lobe. The petals are of perfect form, soft rose; the sepals lighter. From Mr. W. M. Appleton, Weston-super-Mare.

Cypripedium Lord Ossulston.—This is a cross between C. leeanum virgale and C. Charlesworthii album, a beautiful flower with large dorsal sepal, white with green base. The petals are light green, and the pouch is green and brown. From the Earl of Tankerville, Chillingham Castle, Northumberland.

Cattleya Marie Henriette de Wavrin.—A lovely flower with white sepals and petals and a richly-coloured lip; the latter is yellow, with a broad purple central band. *Cattleya Loddigesii* and C. Rex were the parents. From the Marquis de Wavrin, Chateau de Rousele, Sommerghen, Belgium.

Cypripedium Germaine Opais.—A cross between C. fairrieana and C. Mme. Coffinet, a handsome flower with large white-margined dorsal sepal, heavily spotted with crimson-black on a pale green ground. The petals and pouch are reddish. From Mr. F. Wellesley, Westfield, Woking.

Masdevallia cucullata.—A species with very dark maroon-coloured, almost black flowers, borne on stiff stems above the rich green lathery foliage. From Mr. J. Colman, Gatton Park, Reigate.

Cypripedium G. G. Whitelegge.—C. Euryace and C. bellatulum were the parents of this richly-coloured hybrid. The whole tone of the flower is crimson; petals and dorsal sepal are dotted and spotted with crimson-black, and white shows through the ground colouring on petals and dorsal sepal. From Messrs. Sander and Sons, St. Albans.

Cattleya Lord Rothschild var. Fairy Queen.—A flower with white sepals and petals and lovely lip. This is purple near the margin (which is beautifully frilled), and above a clear rich yellow, which fades to a rather pale shade towards the edges. *Cattleya gaskelliana alba* and C. aurea were the parents. From Messrs. Charlesworth and Co., Heaton, Bradford.

EXHIBITION OF VEGETABLES.

The vegetable show, which was held in connexion with the Royal Horticultural Society's fortnightly show, was very poor. In many of the classes there were no exhibits at all, and in others the competition was poor.

The first prize for a collection of vegetables to fill 60 square feet was won by Messrs. Cannell and Sons, Swanley, Kent, with very good produce, although not in great variety. The Potatoes were numerous and good. Carrots and Cauliflowers, too, were excellent.

The first prize for a collection of vegetables (30 square feet) was won by Messrs. J. Cheal and Sons, Crawley, with very good produce. No second prize was awarded.

For a collection of vegetables, to fill 36 square feet (amateurs and gardeners) Mr. E. Beckett, Aldenham House Gardens, Elstree, won first prize. He was the only competitor, with a splendid exhibit well set up.

For a collection to fill 24 square feet the first prize was won by Mr. H. Folkes, Gaddesdon Place Gardens, Hemel Hempstead, Mr. J. Bowerman, Hackwood Park Gardens, Basingstoke, being second.

For a collection of eighteen varieties of Potatoes (trade only) a second prize was awarded to Mr. R. W. Green, Wisbech.

For a collection of twelve varieties of Potatoes (amateurs and gardeners) the first prize was won by Mr. S. Cole, Althorp Park Gardens, Northampton, with an excellent lot of tubers so far as appearance was concerned. The second prize was won by Mr. W. Pope, Highclere Castle Gardens, Newbury.

There were numerous classes for separate vegetables, such as Beans, Broccoli, Tomatoes, Beet, Brussels Sprouts, &c. The first prizes were won by Mr. Beckett, Aldenham House Gardens, Elstree; Mr. W. Pope, Highclere Castle Gardens, Newbury; Mr. H. Folkes, Gaddesdon Place Gardens, Hemel Hempstead; Mr. J. Rushbrooke, Ampthill; Mr. T. W. Herbert, Nutfield Court Gardens, Surrey; Mr. S. Cole, Althorp Park Gardens, Northampton; Mr. J. Bowerman, Hackwood Park Gardens, Basingstoke; and Mr. G. Hobday, Romford.

* * The report of the Floral Committee is held over until next week.

EAST ANGLIAN HORTICULTURAL CLUB.

THE October meeting of this club, held at the Shirehall Hotel, Norwich, was well attended; Mr. J. Powley presided. A paper was read by Mr. H. B. Dobbie upon various botanical aspects of flowers. His chapter on "Sweet-smelling Flowers" explained in some small measure why flowers have perfume. During the discussion which followed, Mr. H. Perry pointed out that it was not always a case of perfume which attracted certain insects to certain classes of flowers, but the fact of their being provided with the means of getting at the nectar. Mr. T. B. Field dealt on the subject of perfume in flowers at some length, and said he could but deplore the fact that although present-day hybridists did much to improve and beautify the appearance of blossoms they did not study the preservation of perfume.

The exhibition tables contained some good specimens of flowers, fruits, and vegetables. Mr. F. Williams, gardener to Louis Tillet, Esq., M.P., Catton, gained quite a series of successes in the former section, his plants of the Improved Scarlet Salvia and Begonia Gloire de Lorraine being up to typical exhibition standard. Mr. C. H. Fox, gardener to Sir E. B. Mansel, Bart., had a good collection of the most recent early-flowering Chrysanthemums. Mr. G. Moore, The Hall Gardens, Etherstet, had some fine Apples Warner's King, and he also brought up a dozen fruits from a Cox's Orange Pippin taken from one tree; every fruit was double, not merely on the stalk, but united quite half the distance from base to apex in the flesh. Mr. C. H. Hines, gardener to Garrett Taylor, Esq., Trowse, had some fine specimens of Apples. The silver medal for Onions was won, with bulbs from an amateur's allotment, by Mr. F. Carrington, 44, Newmarket Street, Norwich, his six bulbs averaging just over 2½ lb. each.

HORTICULTURAL SOCIETIES SCHEDULES.

SHEFFIELD CHRYSANTHEMUM SOCIETY.—The annual exhibition will be held on Friday and Saturday, November 10 and 11, in the Corn Exchange. The secretary is Mr. M. H. Willford, 35, Carfield Armour, Meersbrook, Sheffield.

Bush Hill Park and District Chrysanthemum.—The eighth annual show will be held in Enfield on Friday and Saturday, November 10 and 11. Mr. E. Eccles, 4, St. Mark's Road, Bush Hill Park, is hon. secretary.

Stoke Newington and District Chrysanthemum.—The twelfth exhibition of the Stoke Newington, Stamford Hill, Clapton, and Hackney Chrysanthemum Society will be held in the Devonshire Square Church Schoolroom on Wednesday and Thursday, November 8 and 9. The hon. secretary is Mr. W. Edwards, 82, Varsity Road, Stamford Hill.

Newport (Mon.) and District Chrysanthemum.—The seventeenth annual Chrysanthemum Show will be held on Thursday, November 16, in the Gymnasium Athletic Ground. Mr. H. Poole, 25, Morden Road, Newport, is secretary.

Bath Gardeners' Debating Society.—The first annual Chrysanthemum Show of this association will be held in the Drill Hall, Bath, on Wednesday and Thursday, November 8 and 9. The secretary is Mr. William Butt, Hadsden, College Road, Lansdown, Bath.

DEER HORTICULTURAL SOCIETY.

THE first annual meeting of the above society was held in the Aden Hall, Old Deer, recently, the Rev. R. S. Kemp (president) in the chair. The treasurer's report, which was adopted by the meeting, showed a small balance in favour of the society. Some changes in the rules were also made, and the retiring office-bearers re-elected. The Rev. R. S. Kemp was appointed president, and Mr. James Wallace secretary and treasurer.

THE GARDEN.

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NOVEMBER 4, 1905.

THE BEST APPLES.

THE season for planting fruit trees is now here, and many are considering which varieties they shall plant. We have had several letters from correspondents asking for lists suitable for gardens of various sizes, so we publish the following selections of dessert and cooking varieties for both large and small gardens.

EIGHT BEST APPLES FOR SMALL GARDENS.

Dessert.—Mr. Gladstone, July to August; Lady Sudeley, September; Cox's Orange Pippin, October to November; Cockle's Pippin, Christmas. *Cooking.*—Pott's Seedling, August to September; Stirling Castle, October; Bismarck, November to December; Lane's Prince Albert, January. The above are regular bearers, succeed in any form, and require very little pruning.

BEST APPLES FOR LARGER GARDENS.

Dessert.—Mr. Gladstone, July to August; Devonshire Quarrenden, August; Lady Sudeley, September; Margil, October; King of the Pippins, November; Cox's Orange Pippin and Mother, October to November; Egremont Russet, December; Allington Pippin, December to January; Ribston Pippin, October to November; Cockle's Pippin, Christmas; Old Nonpareil, December to January; Claygate Pearmain, January; Lord Burghley, February; Sturmer Pippin and Allen's Everlasting, March to April. *Cooking.*—Early White Transparent, August; Pott's Seedling, August to September; Ecklinville Seedling and Stirling Castle, October; Warner's King, November; Lord Derby, Blenheim Orange, and Bismarck, November to December; Tower of Glamis and Golden Noble, December; Lane's Prince Albert, Wellington, and Bramley's Seedling, January; Alfriston and Newton Wonder, February; Northern Greening, March.

APPLES FOR CORDONS.

Dessert.—Mr. Gladstone and Devonshire Quarrenden, August; James Grieve, September; Wealthy, Margil, King of the Pippins, Mother, and Calville Rouge Précoce, October; Cox's Orange Pippin, October to February; St. Edmund's Pippin and Ross Nonpareil, November; Adam's Pearmain and Hubbard's Pearmain, December; Allington Pippin, November to February; Scarlet

Nonpareil, January to February; Norman's Pippin, January; Lord Burghley, Duke of Devonshire, and Rosemary Russet, February; Sturmer Pippin, Allen's Everlasting, and Fearn's Pippin, very late. *Cooking.*—Duchess of Oldenburg, August; Pott's Seedling, Lord Grosvenor, and Lord Suffield, September; Grenadier, Golden Spire, and Seaton House, September to October; Lord Derby, November; Bismarck, December; Lane's Prince Albert, January to March; Sandringham, February; Alfriston, Calville Maline, and Calville Rouge, February to March.

PROFITABLE APPLES FOR MARKET.

Grown on Paradise Stock as Bushes.

Dessert.—Beauty of Bath and Red Quarrenden, July to August; Lady Sudeley, September; Worcester Pearmain, September to October; Yellow Ingestre, September; Duchess's Favourite, September to October; King of the Pippins, October; Cox's Orange Pippin, November to February; Beauty of Barnack, November; Allington Pippin, December to February; Gascoyne's Scarlet, Christmas Pearmain, and Winter Quarrenden, December; Baumann's Reinette, January. *Cooking.*—Early White Transparent, July; Lord Suffield, Pott's Seedling, Lord Grosvenor, and Early Julien, August to September; Ecklinville Seedling, Grenadier, Stirling Castle, and Golden Spire, September to October; Lord Derby, Stone's Apple, Tower of Glamis, and Warner's King, October to November; Bismarck, November to December; Lane's Prince Albert, Bramley's Seedling, and Newton Wonder, December to March.

Grown as Orchard Standards.

Dessert.—Beauty of Bath, August; Devonshire Quarrenden, September; Duchess's Favourite, end of September; Worcester Pearmain, September; King of the Pippins, October; Colonel Vaughan, September to October; Cox's Orange Pippin, Allington Pippin, and Blenheim Orange, November to February; Gascoyne's Scarlet Seedling, December to January. *Cooking.*—Lord Grosvenor, Lord Suffield, and Grenadier, August to September; Golden Spire, October; Warner's King, Tower of Glamis, and Lord Derby, November; Waltham Abbey Seedling, November to February; Bismarck, December; Blenheim Orange, November to

February; Wellington, Newton Wonder, Bramley's Seedling, and Northern Greening, January to March; Winter Queen, February to April.

OWN-ROOT ROSES.

A GREAT deal has been written lately on this subject, and doubtless much more remains to be written. In growing Roses on their own roots many essential points ought to receive careful consideration, such as climate, position, soil, an exposure that is well sheltered from wind, &c. Here we are highly favoured as to climate and shelter. Being close to the Solway Firth, the climate during November and December is too kind, as a rule, to our plants, Roses in particular. The Roses continue to grow until Christmas. As the growths made at that season are soft and useless, it means that the plants have been exhausting their energies to no purpose. The soil is fairly good for Rose culture, perhaps rather light, but with deep cultivation, liberal feeding with good, well-decomposed cow manure, forked carefully into the borders some time in March, and copious supplies of liquid manure when they are in full growth, we are able to gather great quantities of good blooms from the end of May until well into October.

After nearly six years of experience here we find the following Roses do well on their own roots. From Tea Roses growing on walls we get our best supplies. They begin to flower in May and continue for about six weeks, then there is a lull while they are making growth, then the second crop of flowers commences in August. Anna Olivier roots freely, grows rapidly, and flowers nearly the whole of the Rose season. Souvenir d'un Ami is another suitable variety. We have several Roses of this grand sort growing on their own roots, all growing vigorously and flowering freely. Francisca Kruger, although not so vigorous as the last-named, is healthy, and flowers very freely. This is one of the sorts that require disbudding, no matter upon which stock it grows, otherwise the growth is small. In Corallina we have a grand all-round Rose which is now growing as vigorously on its own roots as the old grafted plant we had when it was sent out five years ago. Moreover, some plants of Corallina that were rooted here three years ago are now doing well in a garden between Glasgow and Stirling, where the conditions are not very favourable for Rose growing. Boadicea under the same conditions does as well as Corallina. The Bride, Meta, and Bridesmaid that were propagated three years ago have flowered profusely this season.

Among Noisettes such varieties as W. A. Richardson, Rêve d'Or, and Alister Stella Gray, growing on their own roots, are at the top of 9 feet high poles, and when in flower form objects of great beauty at the back of the herbaceous borders. All the Multifloras on their own roots are doing well, and some young shoots of Crimson Rambler have attained the length of 14 feet this season and are still growing. The same may be said of many varieties of the wichuraiana family, Gardenia, Dorothy Perkins, Jersey Beauty, Ruby Queen (a grand Rose), and others.

The Ayrshires grow like Willows on their own roots, but the Hybrid Teas and Hybrid Perpetuals are not so reliable, although many of them strike root and grow well. Some produce small blooms and must necessarily be discarded; still, there are so many varieties that others can be tried, and then only those that produce good decorative blooms need be grown. Perhaps it may be unnecessary to give a complete list of those that do best, as the varieties that succeed well here might not do so well elsewhere, and *vice versa*. However, I am quite certain that the following sorts will succeed with an average climate and a deep, well-drained soil, namely, Augustine Guinoisseau, Baron de Bonstetten, Captain Christy, Captain Hayward, Caroline Testout, Clio, Eugène Furst, Her Majesty, Lord Bacon, Mme. Eugène Verdier, Mme. Eugénie Fremy, Magna Charta, Queen of Queens, Sénateur Vaisse, Victor Hugo, Sir Joseph Paxton, Bessie Brown, Danmark, Killarney, and White Lady. These and many others are all growing vigorously and flowering profusely, many of them being trained as pillar Roses, for which they are most suitable. J. JEFFREY.

St. Mary's Isle, Kirkcudbright.

OBITUARY.



THE LATE REV. H. H. D'OMBRAIN.

By the death of the Rev. H. Honywood D'ombain, Vicar of Westwell, Kent—announced in our last issue—the National Rose Society has

lost its founder and first secretary, the Horticultural Club its founder and first secretary, and horticulture a warm and enthusiastic supporter. In *THE GARDEN* for June 2, 1900, Mr. D'ombain gave an interesting account of the events which led to the forming of the National Rose Society and the Horticultural Club. He there says: "I sent a circular to all those whom I knew to be interested in Rose culture, asking them to meet me to talk over the matter. It was a cold, wet, and miserable day in December, 1876, when we met in the rooms of the Horticultural Club (which I had been the means of forming the year before, and was therefore able, as secretary, to offer as a place of meeting), situated then in the Adelphi Terrace, overlooking the Thames, and I confess it was with some misgivings that I awaited the hour of meeting. . . . There was a good deal of discussion, a committee was formed, subscriptions were promised, and thus the National Rose Society was formed." A few years ago Mr. D'ombain relinquished his secretarial duties in connexion with the National Rose Society and also the Horticultural Club, owing to failing health. He died at the advanced age of eighty-seven.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

November 7.—Royal Horticultural Society's Meeting. Lecture by Dr. J. A. Voelcker, M.A., on "Chemistry in Relation to Horticulture"; Birmingham Chrysanthemum Show (three days); Belfast Chrysanthemum Society's Show (two days); Croydon, Brighton, and Ipswich Chrysanthemum Shows (each two days).

November 8.—Stoke Newington and Cardiff Chrysanthemum Shows (each two days); Bath Gardeners' Debating Society's Show (two days).

November 10.—Huddersfield and District Chrysanthemum Show (two days); Sheffield Chrysanthemum Show (two days); Bush Hill Park and Nottingham Shows (each two days).

November 14.—South Shields and Northern Counties Chrysanthemum Show (two days).

Royal Horticultural Society.—A deputation from the society visited the great International Horticultural Exhibition held in Paris in May last, and on their return the council of the society unanimously decided to offer to M. Loubet, President of the Republic, a token of their appreciation of his and Mme. Loubet's extremely kind reception of their delegates and the cordiality of their welcome during their stay in the French capital. A large Flora medal was therefore struck in pure gold and forwarded to the President through M. Cambon. The following letter from the Secretary of the French Embassy was read at a recent meeting of the council of the society: "M. the Président de la République has been pleased to accept the medal and letter which were presented to him by the Royal Horticultural Society, and has directed this Embassy to convey his sincere thanks to your society."

Conference on fruit growing.—The Royal Horticultural Society recently held at their new hall in Vincent Square, in conjunction with the National Fruit Growers' Federation, a conference on the fruit-growing industry of this country. A letter has been received by the society from the federation, stating that their "council desires to express its warmest thanks to the Royal Horticultural Society for its cordial and effective co-operation in carrying out the late fruit conference on fruit growing, the success of which was so largely due to the excellence of all the arrangements at the hall and the courteous hospitality extended to visitors and members of the federation." These two communications serve to indicate the cordial relations which exist between our national horticultural society and

both our trans-Channel neighbours and the smaller cognate societies at home.

National Sweet Pea Society.—In a note in *THE GARDEN* for the 28th ult., page 266, referring to the disqualification of several exhibitors at the Sweet Pea show in July last, the word *not* was inadvertently omitted from the last sentence, which should read, "Thus if an exhibitor should (now) use either nineteen or twenty-one flower-sprays disqualification will *not* result."

An enormous Blenheim Orange Apple.—I have received from Mr. F. Watson of Sundridge a remarkably large example of this well-known Apple. It weighed 25½ oz., measured 4½ inches high, 5 inches across the base, and 15 inches in circumference. The tree bore about thirty-six fruits altogether. I never saw a finer fruit than the one sent to me.—GEORGE BUNYARD, Maidstone.

Apple Rival.—Few Apples at the recent fruit show created a better impression than the variety Rival, one of Mr. Charles Ross's seedlings. It is strange how long some good fruits take to become favourites. Fruit-growers know what immense advantages any new Apple has that can claim Cox's Orange Pippin as a parent. Rival is worth growing in all gardens for dessert during November and December. It is very handsome, and makes a good dish either for dessert or exhibition, and its eating and cropping qualities are excellent. The tree makes satisfactory growth and crops well. I have seen it splendid as a cordon. There were some splendid fruits of this variety staged, and nearly all were in the leading dessert classes. It is worth including in the single-dish classes.—G. WYTHES.

Proposed show of winter-flowering Carnations.—There appears to be a feeling among growers that the time has arrived when an exhibition of winter-flowering Carnations would be desirable. I venture, therefore, to appeal to all those holding this opinion kindly to communicate with me stating what amount of support they are willing to contribute to such a scheme, so that it may be determined whether a show held early in December would receive sufficient support to make it practicable. In the event of adequate subscriptions being forthcoming, I have already been promised the assistance of several growers in formulating rules and drawing up a schedule. That the American Carnation has come to stay is an undoubted fact, and its adaptability to all purposes of decoration, as well as the individual beauty of the blooms, seem to indicate that an exhibition of these attractive flowers could not well fail to gain the approbation of the general public as well as that of the enthusiastic gardener.—HAYWARD MATHIAS, Thames Ditton, Surrey.

A fine new Tea-scented Rose.—The day following the National Rose Society's great show at the Royal Botanic Gardens in July last, I made my annual pilgrimage to Messrs. Paul and Sons' nursery at Cheshunt. One always expects to find some good new seedlings at this excellent nursery, and on this occasion I was not disappointed, for I made the acquaintance of one of the most beautiful Tea-scented Roses I have ever seen. The name of this variety is Nelly Johnson, and it was raised from a cross between Mme. Berkeley and Catherine Mermet. I expect most lovers of a good Tea Rose already grow Mme. Berkeley. It is a glorious autumnal variety, and almost as indispensable as G. Nabonnand. Though not a strong grower, its erect, sturdy habit, grand foliage, fine wide-petalled flowers, and sweet fragrance have won it hosts of friends. Nelly Johnson is simply a pink Mme. Berkeley, retaining the scent, form, and habit of this variety. I am not sure as to when it will be distributed, but I have no hesitation in promising it an immediate popularity.—ARTHUR R. GOODWIN.

A hybrid British Orchid.—Kentish botanists (says the *South Eastern Gazette*) will be interested to learn that a new species of Orchid has been discovered in Kent. It appears that in May last two members of the Canterbury Nature Students' Club, Messrs. G. H. Harris and Hubert Walker, while on an Orchid hunting excursion at Wye, were fortunate enough to come across a curious hybrid, which appeared to be a cross between the familiar Fly Orchid and the Spider Orchid. This hybrid possessed certain characters of each of the Orchids named, yet it was quite distinct. A dried specimen was submitted, at his request, to Mr. R. A. Rolfe, of Kew, the editor of the *Orchid Review*, who at once pronounced it to be *Orchis hybrida*, a species which, although known on the Continent, had never before been discovered in this country.

Royal Gardeners' Orphan Fund: A suggestion.—The approach of the Chrysanthemum shows suggests a way by which the above-named charity might be benefited. It is not by any means (considering their numbers in the United Kingdom) supported by gardeners as it should be, for the orphans of whom it was specially designed, and the carrying out of the accompanying suggestion may somewhat make amends for such truly deplorable and apathetic action. Exhibiting Chrysanthemums has become a delightful and remunerative hobby with many. Why not, when these welcome "trophies" to their cultural skill are disbursed, set aside a portion of them to the pressing claims of their own institution, and in doing so, if they have not already enrolled their names on the annual list of subscribers, such action may be—let us hope sincerely it will be—but the preliminary to such a good step! I have been recently quietly looking over the last published list of subscribers—that issued with last year's annual report—and I have been quite amazed at the absence from it of the names of well-known head gardeners and others in good and responsible positions, who should set a good example to others. —LIFE MEMBER.

Old English flowers at Ravenscourt Park, Hammersmith.—A praiseworthy attempt has been made here to cultivate some of the Old-English flowers. As is appropriate at this particular period of the year, Michaelmas Daisies give a welcome glow of colour. What fine varieties of these we now have!—thanks to the persistently good work, among others, of such raisers as Mr. E. Beckett, Lord Aldenham's well-known gardener. Pentstemons, too, attracted notice. Here we get brighter colours than they were some years ago, being now, indeed, among the brightest things in the border. The good old and showy Snapdragons, thriving in almost any soil, are well planted, and the Mignonette deserves notice. That invaluable flower for the decoration of the border in late autumn, *Anemone japonica alba* (syn. *A. Honorine Jobert*), is in masses of its white flowers quite a feature. Nasturtiums prove their adaptability as climbers by gracefully festooning arches round the garden. Here the Chrysanthemum was seen in its proper element—grown outdoors—an inducement, let us hope, to visitors to cultivate more generally a beautiful flower that is so much neglected in this direction. Roses, too, in large, round beds were still flowering well, even though so late, an "education" to the average Londoner, who associates them with June; and as standards we noted that good Hybrid Tea Captain Christy, with its salmon-flesh flowers, distinct in colour; *Magna Charta*, bright pink, fine habit; and the famous *La France*, with its silvery peach flowers. That favourite flower of the bees, the well-known *Sedum spectabile*, crowned with its pink and white flowers, flowering equally well in shade or sun, was noticeable. Flourishing as they do in any garden, brightening it when the leaves are falling and the year is dying, the beautiful hardy and showy perennial Sunflowers (*Helianthus*)

need no praise. The varieties have been much improved during recent years. Appropriately, in a separate little colony and in a shady spot—the best position for such plants—British Ferns in interesting variety form a welcome change, by their greenery, to the surrounding colour.—QVO

Cratægus punctata—Certain groups of hardy trees are this autumn bearing an unusually plentiful crop of fruit. Beeches, Oaks, the Chestnuts, and even the Hornbeams are heavily weighted, and among more purely ornamental trees the White Beam trees (*Pyrus Aria*, &c.), and the Thorns are, or have been, particularly noticeable for their rich crops. At Kew the specimens of the North American Thorn—*Cratægus punctata*—were, in early October, amongst the most beautiful. There are several varieties of this Thorn, but none are more beautiful than the type, with its large haws (nearly three-quarters of an inch in diameter) of a rich red hue. The variety *xanthocarpa* has yellow fruits, and in the variety *brevispina* they are deep cherry-like red, almost bordering on black. All three varieties are very ornamental, and in all of them the haws are distinguished by having the surface speckled with the tiny dots to which the specific name refers. There are fine old specimens of this Thorn in some of the old gardens and



A BLUE PANSY FROM NICE.

parks near London. Other Thorns in great beauty now are the Cock-spur Thorns (*C. Crusgalli* and its varieties), with scarlet fruits and beautiful red and orange tints in foliage; the Washington Thorn (*C. cordata*), with numerous clusters of orange-yellow haws; and the yellow-fruited variety of the common Thorn.—W. J. BEAN.

A blue Pansy.—Last February Mr. E. H. Woodall sent us from Nice a charming little *Cornuta*-like Pansy, but it is not *Cornuta*, which we planted in a border full of Lavender and Rosemary. It has proved quite a dwarf little Pansy, and its pretty blue flowers appear so liberally that the growth has been almost hidden under blossom from spring until the present time, notwithstanding the seed-pods were allowed to remain. We shall remove it to some beds next year, as it is a Pansy to form an undergrowth to Roses.

The Durban "Botanical" Society. This body by under-cutting values has stirred up the florists. A petition to the Durban Town Council is now being signed, praying that their subsidy may be stopped. If this fails, an effort will be made to unseat those councillors who are members of the society, on the grounds that they

have voted corporation funds to a private firm in which they are interested. This society is composed of a lot of people well able to afford the florists' prices. To give it a semi-public appearance, anybody can become a member by paying the subscription. In addition to getting made-up work, plants, etc., at schedule rates, members get a big reduction, about 20 per cent. in addition. By the means it employs, this society has gathered in a great number of the florists' customers, and it is able to sell at the terms it offers, as it has only to meet salaries. The society is only botanical in name, and does nothing that such a society should do. It does not grow and popularise the indigenous plants, of which there are many beautiful ones. Neither does it import anything new and valuable. Perhaps now that the state of affairs is known, your English botanical societies will refuse to recognise this trading concern, as they will know that anything they send to this society will be used for purposes of trade.—NURSERYMAN.

Good Calceolarias.—The three *Calceolarias* noted in THE GARDEN for September 2 as being very finely in flower at Kew, in which condition they had been for some time, were, at least in the case of two of them, as bright and full of flower as ever on October 14. Perhaps the finest of all is *Calceolaria integrifolia*, but for bedding the plants will flower well when only 18 inches high. The colour is rich golden yellow. The rather loose growing *C. amplexicaulis*, with its masses of sulphur yellow flowers associated with pretty soft green foliage, showed little if any traces of autumn's approach. The third *Calceolaria* mentioned in the previous note, viz., Jeffrey's Hybrid, obtained by crossing some of the herbaceous varieties with the shrubby kinds, was decidedly past its best, though still bright and cheerful. Now that the practicability of crossing the members of these two sections has been clearly demonstrated, we shall doubtless before long see considerable strides in the same direction.—H. P.

A new hybrid Calceolaria.—In addition to the work which comes more before the public eye, there is a good deal of an experimental kind going on in the Edinburgh Royal Botanic Gardens. Some of the hybridising has yielded good results, and from what is being done by members of the staff at present we may confidently expect still greater things. There has been in bloom in the gardens for the last three months a bed of *Calceolarias*, the plants being the result of hybridising *C. plantaginea* and one of the greenhouse sorts. The hybrid appears to have the hardiness of *C. plantaginea*; and the large blooms are of a bright yellow prettily spotted with reddish-brown at the back. If only for bedding this hybrid ought to have a future before it, although, like such hardy *Calceolarias* as *plantaginea* and *kellyana*, it will most likely require frequent attention in the way of propagation. In good soil it will probably grow from 1 foot to 18 inches high. The foliage is ornamental in itself. As already said, the flowers are yellow, but Mr. D. S. Fish, who has had the satisfaction of raising it, tells me that he expects to have other colours another year. Even those who are not enamoured of the too frequent use of the *Calceolaria* in bedding recognise that the flower has much beauty, and that anything which will make it hardier and more useful is worthy of encouragement.—S. ARNOTT, *Sunnymead, Maxwelltown, Dumfries.*

Flavour in Beetroot in autumn. I saw some Beetroots exhibited recently with the recommendation that the roots were of better flavour than all others. No one can tell what quality these roots are from those not cooked, and I have found that the best flavoured root is not always the most shapely. For twenty-five years I have grown the Cheltenham Green Top Beet. It is not a handsome root. When the seed is sown in rich land it is coarse, but this can be avoided by studying its

season. Grown for winter and early spring use so far as regards flavour I have never found its equal. It is naturally a large root, and usually large Beetroots are not wanted. To avoid this we sow later, and in land that was deeply dug and manured for a previous crop. Grown thus the quality is all one can desire. The roots are bright red, and there is an absence of the close earthy flavour that is characteristic of some sorts. The plants when in growth are quite green, and the roots when lifted should be stored in a cool place to keep them from shrivelling.—G. WYTHES.

Rose Paul's Single White.—If Mr. Field has not grown his plants of this Rose as dwarfs, pruning them close in like Hybrid Perpetuals, I would advise him to do so, as plants treated in that manner succeed admirably, flowering over a long season and producing large deep green leaves.—E. M.

Choisya ternata.—Among other shrubs, especially when a southern exposure can be given them, and with a sandy soil, this Mexican Orange succeeds admirably in the Southern counties. Somewhat close pruning after the flower crop is over in May and June will induce free growth to be made which, with a favourable autumn, will give a fairly good crop of blossom in October. As a wall plant, allow freer growth than is usual with wall plants to obtain plenty of blossom; in fact, in most seasons a suitably placed specimen is quite white in May, hardly any leaves are to be seen. It is of easy propagation; cuttings of the half-ripened shoots firmly dibbled in a cold frame in September root quite easily.—E. M.

The Coral Tree (Erythrina Crista-galli).—Although it is no uncommon sight to see this Coral Tree making a fine display in Hyde Park, in how many gardens of a private character can we see it in a similar flourishing manner? Very few gardens have the convenience to prepare the plants beforehand to produce so fine an effect. Where a suitable site can be found for a permanent plant or two it is a charming subject to grow, as when once established an annual flower crop is assured. At Aldenham, Elstree, it is grown outside the east end of a span-roof Orchid house, where it derives warmth from the inside, and the morning sun, too, assists growth. How long the plant has been in its present site I do not know, but certainly ten years at least. The plant is annually pruned down to its base, and throws up vigorous shoots 6 feet high with flower-spikes 18 inches long. As the succulent growth is so free during the summer, liquid stimulants will assist the development of the foliage considerably, and will add to the size of the individual blossoms.—E. M.

Javanese Rhododendrons in flower.—Greenhouse Rhododendrons are rarely without bloom, especially during autumn, when they are always much appreciated. To be seen at their best they need a structure somewhat closer and warmer than an ordinary greenhouse, conditions which prevail in the Mexican portion of the temperate house at Kew, where there is a good collection. Instead of being grown in pots, as is usual with these Rhododendrons, they are planted out in a bed prepared for the purpose, and right well they respond to this mode of treatment. They were placed in their present quarters some four or five years ago, the border being thoroughly drained with brick rubble, and made up with peat and sand. The ground was formed into ledges or terraces by stumps of large trees, and though I must confess to being at first sceptical of the wisdom of this, fearing fungus troubles, there has been as far as I know up to now no ground for complaint. At all events the following varieties were flowering freely in the middle of October, the bright colours of some of them being particularly effective on a dull cloudy day: Aphrodite, blush; Diadem, orange scarlet;

Empress, rose-pink; jasminiflorum carminatum, rich carmine; Latona, creamy yellow (a hybrid of R. multicolor); Monarch, buff yellow, shaded orange; President, yellow, tinged rose; and Princess Alexandra, almost white, one of the oldest of all.—T.

Ceanothus Gloire de Versailles. This is one of the best outdoor shrubs with blue flowers. It is perhaps seen to the best advantage on a warm wall, where it escapes frost, for although it is one of the hardiest of the Ceanothuses, it is very liable to suffer in cold localities. In the milder parts of the country it can be grown in a bed in the open, where its rather straggling habit is not so conspicuous as when it is planted as an isolated specimen. The light blue flowers are produced in terminal panicles 9 inches or so in length. These are produced in July, and last for some three weeks in full beauty, gradually going off for another fortnight or so, but again come into bloom, and last until frost comes. This year they were in flower until October 16, when we had 12° of frost, which cut them all off. The ovate leaves are 3 inches to 4 inches long by about 2 inches wide, glabrous above and woolly beneath, with finely serrated margins. The plant requires a light, rather dry soil, and should not be too well treated with manure or the growths are apt to become sappy, and therefore easily cut by frost.—J. CLARK, Bagshot, Surrey.

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(Continued from page 252.)
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C. HARMAN PAYNE.

(To be continued.)

THE FLOWER GARDEN.

SINGLE CHRYSANTHEMUMS FOR THE BORDER.

IT is only within recent times that it has been possible to compile a list of early-flowering single Chrysanthemums for the border. For years previous to their acquisition there was an occasional enquiry for the single-flowered sorts that would bloom in the outdoor garden in September and October. It is pleasant, therefore, to recall these facts, and to supplement the latter with a list of single sorts. So far as one can trace there are about eighteen good and reliable varieties now catalogued, and there is little doubt that each succeeding season will see this list increased. Specially good is the variety sent out last season under the name of

Mrs. Chas. H. Curtis.—This is a sturdy plant, bearing in charming profusion very large flowers of good form, the colour of which may be described as deep rich crimson, with a rich yellow disc or centre. It is in flower during late September and throughout October. Height, about 3 feet.

Ladysmith.—This does not flower until the middle of October, and continues to do so for several weeks. The flowers are of small to medium size, and are developed in the greatest profusion on plants of bushy growth. Height, 2½ feet. The colour is a rose-pink, with yellowish disc.

Early Queen.—A charming single-flowered sort, colour a pleasing shade of blush, with a disc of good form. This plant is in flower during September, and attains a height of 2 feet.

Pride of Merstham.—In this instance the plant was distributed in the spring of the present year. The flowers are large and freely produced throughout September, and later when the weather is favourable. Colour, reddish purple, with yellow disc. Height, about 3 feet.

Eclipse.—Another excellent October-flowering variety. The flowers are large and of good form, and the colour is a striking rich amaranth, with yellow disc. Free flowering and robust. Height, about 3 feet.

Pink Beauty.—This is a novelty of which little is, unfortunately, known. The flowers are of perfect form, and their colour is a beautiful shade of rose-pink. Height, 2 feet.

Merstham Beauty.—Another promising novelty. Large flowers; colour, rosy pink, with white zone round disc. The plant blooms profusely, making a charming display in the open border throughout September. Height, about 2½ feet.

Elegance.—This is a beautiful variety, with long, prettily pointed florets. Colour, bright chestnut red, with a gold base and well formed yellow disc. Useful for October displays. Height, about 3 feet.

Mabel Goacher.—An interesting little plant, flowering as early as August in the open. The blooms are of small to medium size, and they are white. Height, 18 inches.

Early Queen.—Another good September-flowering variety. The flowers are of good form, and the colour is a lovely shade of blush, with a pale yellow disc. Height, about 2 feet.

Nonin's Single.—A desirable acquisition, and of a pleasing yellow colour. Dwarf and free flowering, and in fine condition outdoors in late September and later.

Venus.—Large and beautiful flower of a bright lake colour, with lovely yellow disc. The plant blooms profusely in early October. Height, about 3 feet.

Mary Ponting.—An uncommon flower. Colour, deep red, finishing white towards the centre—really a white zone round yellow disc. Comes into flower in October outdoors. Height, 3 feet.

May Crooke.—Another October variety, the plant developing dainty flowers of a terra-cotta colour, with a yellow disc. Height, about 2 feet.

Yellow Glory.—As the name implies, this is a bloom of a very showy and effective bright rich yellow colour, with a large, high disc. An October-flowering variety. Height, 3 feet.

C. F. Cast.—This is a unique single-flowered sort of medium size. Colour, deep rose, with white base to the florets, running into a neatly formed yellow disc. Sturdy grower, branching habit. Height, 2 feet.

Minnie.—A charming mauve-pink flower with a white ground. Sturdy growing plant that comes into bloom in October. Height, 2 feet.

Dora Sorpey.—Of the many good things in commerce this is one of the best. A few sprays have just come to hand from the raiser, Mr. W. J. Godfrey, and they are very beautiful. The colour is a pleasing shade of soft canary yellow, and the medium-sized blooms are developed in elegant sprays of some five to six flowers on each. Valuable for decoration. Evidently a fine addition to the early October flowering sorts.

Highgate, N.

D. B. CRANE.

BEAUTIFUL TYPES OF CHINA ASTERS.

AMONG the most beautiful flowers of the garden this summer have been the large Chrysanthemum-like China Asters, which are sold under the name of "Ostrich Plume." The more formal types—the Victoria and French as examples—never excite our admiration, but the Comet and Ostrich Plumes toss their petals in the wind, and as they turn, the pure, clear colourings seem to shine

with special beauty. The shades of mauve and pink win friends for these half-hardy annuals, and we hope the raisers of them will continue their good work. The white form is as white as a little drift of freshly fallen snow, and its value for cutting with the pink and mauve is increased by the fluffy informal nature of the flower itself. We shall grow more of these beautiful Asters next year, as they have proved one of the blessings of the garden in 1905.

THE CLASSIFICATION OF THE NARCISSUS.

(Continued from page 250.)

BETWEEN the true Daffodils and true Narcissi lies a group of forms—numerous enough twenty years ago, but now, owing

to the rapid production of garden hybrids, almost innumerable—all of an intermediate character. In this intermediate group there would seem to be only two undoubted species; all the rest are either natural hybrids produced by cross-fertilisation in a wild state, or the result of cross-fertilisation in garden culture. The variety of forms in this group is immense, passing through every gradation from somewhat shortened trumpets to very small cups and flat discs, the perianth segments showing great variation of length, breadth, and angle of separation from the crown, but they are all clearly intermediate between the other two groups, as may be shown by applying the tests of perianth and crown measurement, perianth conformation, and staminal arrangement not forgetting the points in which the bunch-flowered forms differ from the single-flowered.

Mr. Baker's classification, which was admirably suited for defining the species and ancient hybrids with which he was dealing, was mainly based upon the relative length of the corona and perianth segments, but a glance at his arrangement will show that his measure-limits were not intended to be merely arbitrary, but followed the natural division set out above, his Magni-coronati (with the one exception of *Narcissus calathinus*, which

he afterwards removed to its proper place in the Medio-coronati group) consisting of the true Daffodils, his Parvi-coronati group being made up of the true Narcissi, and his Medio-coronati group (with the one exception of *N. Dubius*, which he afterwards removed to the Parvi-coronati group) including the intermediate forms between true Daffodils and true Narcissi.

But when this arrangement came to be applied to a collection of Narcissi, including a number of garden hybrids, a difficulty at once arose, from the fact that some of the hybrid forms approached so nearly in appearance to the true Narcissi on the one side, and to the true Daffodils on the other, that it was easy in following hard and fast measurements to get them over the border-line into a false position. These garden hybrids were



FLOWERS OF THE OSTRICH PLUME CHINA ASTER.

divided up into different sections, according to their different characteristics, under such names as *Incomparabilis*, *Barrii*, *Leedsii*, *Burbidgei*, *Nelsoni*, *Backhousei*, &c., and all of them, except *Burbidgei*, were rightly placed in the intermediate group, although in some cases, such as *Backhousei* and *Humei*, the relative lengths of crown and segments did not agree with the actual measurements fixed upon by Mr. Baker for his Medio-coronati group. They were, however, from other considerations clearly intermediate. But in an unfortunate moment an exception was made in the case of the *Burbidgei* type of flower.

Although these flowers undoubtedly have some true Daffodil blood in them, and are so nearly akin to the Barrii forms that it is often difficult to distinguish between the two, and although both Burbidgei and Barrii forms are frequently raised from the same pod of seed, the Burbidgei flowers were placed with the true Narcissi in the Parvi-coronati group, while the Barrii flowers were put in quite another main division—among the intermediate forms in the Medio-coronati group, an inconsistency which is thought by many to amount to absurdity, and which has given rise to much confusion. A similar inconsistency, though more excusable, was fallen into when Johnstoni, which is now known to be Pseudo-Narcissus \times triandrus, and so of mixed blood, was placed among the true Daffodils because of the length of its crown. These inconsistencies in an otherwise excellent system, being few in number, could be easily remedied, but in Messrs. Burbidge and Barr's new classification they are perpetuated and added to. Not only is the Burbidgei section left in the Parvi-coronati group among the true Narcissi, and the Johnstoni in the Magni-coronati, but Humei, Backhousei, and Tridymus (though evidently of mixed Daffodil and Narcissus blood) are now removed from the middle group and placed in the Magni-coronati group among the true Daffodils. Mr. Engleheart has raised both Backhousei and Nelsoni forms from Pseudo-Narcissus bicolor \times Poeticus, and Mr. Baker (see *Amaryllidaceae*, page 13) considers both Backhousei and Macleaii to be connecting forms between Pseudo-Narcissus and incomparabilis, and Mr. Burbidge, in a paper read before the Royal Horticultural Society on April 9, 1889, advocated the placing together of N. Macleaii, Nelsoni (in part), and Backhousei under a common name; and yet Backhousei, because it shows slightly more of the Pseudo-Narcissus blood, is now to be placed in the first main group, while Macleaii and Nelsoni are in the second. This seems an unnatural arrangement. Again, Tridymus, a two or three-flowered form with evident Tazetta blood, is placed among the one-flowered Daffodils of the Magni-coronati group.

The question, then, is forced upon us, Is it desirable to adopt a system of classification which depends to such an extent upon a hard and fast rule of crown-perianth measurement as to ignore what we know of the parentage and natural affinities of these flowers? The answer would seem to be, No.

It is suggested, therefore, that the first step to an improved classification—a step which requires a very slight alteration in the present system—should be to form Group I. exclusively of true Daffodils, and Group III. exclusively of true Narcissi. All seedlings resulting from the union of two true Daffodils should be placed in Group I., all those from the union of two true Narcissi in Group III. All cross-bred forms containing both true Daffodil and true Narcissus blood should be put with the two species of intermediate character, Triandrus and Juncifolius, in Group II., to be called, perhaps, intermediate Narcissi. In sub-dividing this middle group forms having special characteristics must be carefully distinguished from each other (for example, hybrids of Triandrus from hybrids of Poeticus, and so on), but subject to such distinctions arbitrary crown-perianth measurements would be usefully employed.

An objection is sometimes, though perhaps not very reasonably, made against any attempt to improve the classification, that it is quite impossible to ascertain with certainty the parentage of many of the new seedlings. The difficulty may be met by forming in the middle group a separate section for such unidentified forms. Those seedlings in which



ROSE FRAU KARL DRUSCHKI (THE BEST WHITE ROSE).

the marks of relationship are so indistinct as is alleged are practically speaking nondescript, and there would seem to be no objection to putting them in a nondescript class. Far better to do this than by purely arbitrary rules of measurement to mix up forms whose parentage is known with others about which we cannot be reasonably sure.

II.—The second defect alleged against the usual system of classification of the Narcissus is its inadequacy, viz., that it does not find places for many of the newer and finer types of flowers, such as Snowdrop, Eleanor Berkeley, and the other Berkeley Daffodils, Egret, Janet Image, &c. For these new types, falling mainly under Group II., new sub-divisions must be formed, and this is partly done in the scheme proposed by Messrs. Burbidge and Barr. But in each main group, before considering what additions are needed, it might be well to enquire whether all the old sub-divisions are really necessary.

In Group I. (True Daffodils) none of the present sections can be dispensed with, the only alteration must be by addition. Cyclamineus is now considered to be a species, and must, therefore, be made into a separate section, as, indeed, is done by Messrs. Burbidge and Barr. We shall then have:

GROUP I.—True Daffodils, with characteristics as stated above. (1) Ajax (syn. Pseudo-Narcissus) or Trumpet Daffodils, including (i.) yellow Ajax; example, Golden Spur. (ii.) Bicolor Ajax; example, Empress. (iii.)

White and sulphur Ajax; example, cernuus. (iv.) Double Ajax; example, Telamonius plenus.

(2) Corbularia (syn. bulbocodium) or Hoop-petticoat Daffodils; examples, conspicua and monophylla.

(3) Cyclamineus, with remarkably short tube and with perianth segments entirely reflexed.

Cross-fertilised flowers between these three species are at present very few, and not of very great account.

S. EUGENE BOURNE.

(To be continued.)

ROSE FRAU KARL DRUSCHKI.

AUTUMN BLOOMS on Roses here have been very good this year, the accompanying photograph being of a mid-September flower of Frau Karl Druschki, the finest white Hybrid Perpetual Rose of all, and one which in the middle of October still has quite a number of good blooms on it. The photograph was taken by pinning the Rose on a drawing-board, with a piece of dark red art mounting-paper as a background. This seems to be about the best method of taking flower portraits, varying the tint of paper to suit the flower, which is the most difficult part, and an excellent study in the effect of colours on a sensitive plate. The exposure should be taken in front of a window, far enough back to get shadows without direct sunshine, and preferably on a dull day, a small looking-glass being a great help in modifying the shadows. Though this method takes some time, a photograph can be made a certain success by developing each plate as exposed, and it is generally worth the time which may be spent upon it.

Yalding.

H. REID.

EXHIBITING FRUIT AND VEGETABLES.

SCHEDULES BADLY WORDED.

WE have received several letters on this subject recently, and as it is one of importance to exhibitors we publish the following case, which is similar to others brought to our notice:

A correspondent states that in the class for fruit at a horticultural show held recently the schedule stipulated that the collection should consist of six varieties of fruit, and that the collection of vegetables should consist of twelve varieties. This statement is perfectly clear and unmistakable, and, properly understood, means that six varieties of fruit can only be shown in the fruit class, and only twelve varieties of vegetables in the vegetable class. On our correspondent's showing, the disqualified collection of fruit consisted of not six varieties, but eight, and, therefore, was not in accordance with the schedule, and the collection of vegetables of fifteen varieties instead of twelve as stipulated. In these circumstances the judges had no option but to disqualify. For instance, black and white Grapes are certainly two distinct varieties of Grapes, and so are yellow and red Plums, and any other distinct varieties of any kind of fruit in the same way. The same with Potatoes. Round and kidney-shaped ones are two distinct varieties. So are white and green Vegetable Marrows, and the same with Tomatoes, red and

yellow, and so on. These classes; all the same, are loosely and badly drawn up. Thus in the fruit class, any exhibitor would have been within his rights if he had exhibited, say, six varieties of Grapes only in this collection. The judges could not have disqualified him, as he would have conformed to the schedule in showing six varieties of fruit, or he might have shown six varieties of Peaches only, or of any other kind of fruit. The same applies as regards vegetables. According to the wording of this schedule, twelve varieties of Potatoes or of any other kind of vegetable would have been admissible.

The mistake made in this, as in many other schedules by the framers, is in not distinguishing between what is a kind and what is a variety of fruit. The Grape is a kind of fruit of which there are very many varieties, as there are of other kinds of fruit. It is the same with vegetables. For instance, the Potato is a kind of vegetable, and there are innumerable varieties, and so with Tomatoes, Marrows, Cucumbers, Peas, &c. The two terms are totally distinct, and convey entirely different meanings, and as such should be used in all schedules.

The proper way to draw up the classes under notice would be to state them thus: "Collection of six kinds of fruit." There could then have been no mistake, and only one variety of a kind could have been shown. But far better would it have been to have stated the conditions thus: "Collection of six kinds of fruit, two varieties of Grapes, two varieties of Peaches, and two varieties of Plums allowed," or two varieties of any other kind of fruit could be allowed, but it should be stated what the kind of fruit is. By doing this a larger and a more interesting collection of fruit is obtained. The vegetable class should read: "Collection of twelve kinds," adding, if thought desirable, that two varieties of Potatoes, the same of Peas, or of any other kind of vegetable would be allowed.

The framers of schedules cannot be too careful and explicit. This governs the preparations of exhibitors for nearly a year in advance of the show, and nothing is more disappointing and discouraging to an exhibitor than to find out on the show day that he has inadvertently

misinterpreted the terms of the schedule, and finds himself disqualified in consequence. The judges are bound to study closely the wording of the schedule, and to carry out its provisions to the letter, or injustice to those exhibitors who had conformed would be the consequence. To have to disqualify a dish or a collection of fruit is a most unpleasant and disagreeable duty for a judge to have to perform, but in nine cases out of ten the cause of the mistake or misunderstanding lies at the door of the framers of the schedule, or with the exhibitor for not making himself sufficiently well acquainted with its provisions, but scarcely ever with the adjudicator.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

OXERA PULCHELLA.

[To THE EDITOR OF "THE GARDEN."]

SIR,—In attempting to correct my statement regarding the flowering of this plant, your correspondent, John Kennedy (page 238) is altogether wrong. I have a note of seeing it in flower during a visit to Pendell Court at the end of 1886, but at the same time am fully aware that without verification this counts for nothing. Fortunately, I am enabled, in more ways than one, to substantiate my previous note, or at all events to prove that your correspondent is incorrect in his dates. In the first place, it was given a first-class certificate on January 10, 1888, being, according to the Journal of the Royal Horticultural Society, shown by Ross; next, a coloured plate of it was given in THE GARDEN, June 2, 1888, and in the article accompanying the plate Mr. Watson of Kew stated that it flowered for the first time in the December of 1886, when it was figured for the *Botanical Magazine*. Lastly, Mr. Ross himself, writing from Pendell Court, in THE GARDEN, June 16, 1888, does not give the exact date of its first flowering, but states that "it again flowered

profusely this year," thus proving conclusively that it had flowered at least the year previously. H. P.

SOLANUM JASMINOIDES OUT OF DOORS.

[To THE EDITOR OF "THE GARDEN."]

SIR,—We are forwarding you herewith a photograph of *Solanum jasminoides* taken recently in our nurseries. The plants in question were planted out in March last, and were then about 2 feet in height. The photograph hardly conveys a very clear idea of the great beauty of the group, which has been completely covered in flower for nearly three months. We do not think this plant is used as much as it might be for picturesque bedding. It is easily raised from cuttings, and in light soils it will survive the winter if the roots are covered with ashes. The plants on the left of the picture in front of the *Cupressus macrocarpa* were planted out two years ago, and the only protection they received was a covering of ashes over the roots.

THE BARNHAM NURSERIES, LIMITED.
Barnham Junction, Sussex.

AUTUMN TINTS: PYRUS PINNATIFIDA.

[To THE EDITOR OF "THE GARDEN."]

SIR,—Referring to the interesting and well-timed article on "Autumn Tints" in THE GARDEN of the 14th ult., there is a beautiful but very little-known tree called *Pyrus pinnatifida*. It is small and compact in growth, and therefore desirable for small gardens. It is allied to the Mountain Ash or Rowan tree, and is beautiful at all seasons—in spring with glaucous foliage and white flowers, followed by bunches of berries, which gradually become bright red. These are gladly taken by birds, who spare the edible fruits, but the beauty of the tree is not lost. The foliage turns to a brilliant amber colour, fading off to a rich brown. In this garden the tree is planted next to the dark Plum (*Prunus pissardii*), and beyond that *Cotoneaster frigida*, also another handsome berry-bearing tree, but of sprawling growth, needing frequent pruning to keep it in shape. A delightful harmony of colour visible at all seasons from the windows of a house adds so much to the beauty and interest of a small garden. These small and mostly deciduous trees, with their succession of variously coloured flowers in spring and early summer, followed by the berries and the brilliant tints of autumn are most valuable.

FIRCROFT.
Englefield Green, Surrey.

CHOISYA TERNATA.

[To THE EDITOR OF "THE GARDEN."]

SIR,—I fear the remarks of "Avon" in THE GARDEN of the 14th ult., page 237, may lead readers to suppose that *Choisya ternata* is much more tender than it really is. In my old garden at Carsethorn, close to the Solway, I grew it for several years, and it never suffered. I am without it at present, as my only plant succumbed to the dry weather which prevailed after its late removal. I have, however, no fear of replacing it, as it is hardy in Scotland, even north of the Tay, in some parts at least, and within the last month I have seen several fine plants grown in this district and quite away from a wall, both near and away from the sea. It is also hardy in the



SOLANUM JASMINOIDES IN THE BARNHAM NURSERIES, SUSSEX.

Elinburgh district. With every word said by "Avon" in praise of this Mexican Orange one must agree, and it is only with the view of encouraging many more to try it that this note is written. It grows in almost any soil, but free drainage is one of the essentials. S. ARNOTT.
Sunnymead, Maxwelltown, Dumfries.

WEeping HAWTHORNS.

SEVERAL varieties of *Crataegus monogyna* have a weeping or pendulous habit, and all make excellent lawn trees, being graceful in appearance and very free-flowering, as shown by the accompanying illustration. The specimen shown is about 16 feet in height. Usually these pendulous varieties are grafted on stocks of the type 10 feet or 12 feet above the ground; the higher the tree, the more commanding its appearance. With young trees, and even with those twenty or thirty years old, it is possible to increase the height to a considerable extent by tying up a branch near the centre to form a leader. The appearance of a specimen is considerably benefited by an occasional judicious pruning, taking out all branches which appear to be developing more rapidly than the rest, keeping the main branches well thinned out and all shoots off the ground. Weeping Hawthorns can be obtained with single and double white, red or pink blooms, and with variegated leaves. When planting these or other weeping trees, it is not advisable to have too many together, or the effect will be spoilt. One here and there to give variety among other trees is quite sufficient, the contrast between normal and pendulous-habited trees being the thing at which to aim.

W. D.

THE ANNALS OF THE LITTLE RED HOUSE.

X.—THE CROQUET GROUND.

THERE are a few words still to be said about the herbaceous borders, but on so enthralling a subject I am not afraid of wearying my readers.

The time and season for planting are of vital importance, and authorities advocate all general work of this kind being done in the autumn, as then the summer sun has warmed the soil and it still retains a desirable quantity of heat. For the first making of a border this work should not be done later than October. All tap-rooted plants succeed best planted then, and all quite

hardy perennials may safely be put in their new quarters. When once the border is made it will only be necessary to surface dress it each autumn, and sulphate of potash—about 2cwt. to the acre—in early spring is very valuable; but if your soil is very rich and you have not to contend with any great demands on it from evergreens or the neighbourhood of trees, you can do with autumn mulching. Every three or four years you will have to remake your borders by deep digging and liberal manuring. The question then will come whether your bulbs are all to be disturbed, and gardeners seem to differ on this subject. I should be very glad to have advice on this matter from some of the correspondents in *THE GARDEN*, for this autumn we have all this work before us. The *Narcissus* tribe resent manure, and it seems difficult to avoid their taking up a certain quantity even if you keep the stuff as

early frosts in our valley that we never plant Dahlias in our mixed borders now, for we have had a blackened mass before the Michaelmas Daisies and perennial Sunflowers had done flowering. The surface soil of the borders must be well broken up in the spring as soon as you see the noses of your Daffodils and other bulbs peeping through the soil, and this should be done all through the summer. When dry weather sets in you will find the great value of this. It saves watering and destroys insects, particularly the destructive ground slug, and renders the soil fertile. It is, I know from experience, extremely difficult to use a hoe in a well-filled border without doing mischief and decapitating some treasure; but practice makes perfect, and holding your hoe in a firm grip is half the battle. A child's Dutch hoe is an admirable little tool, but I believe a swan-necked Onion hoe is the best. I have

often watched with admiration and envy the wonderful dexterity of the practised gardener exterminating unflinchingly legions of weeds and never a precious seedling injured.

The next important work at the Little Red House was the making of a croquet ground. It was impossible, however, to make it the orthodox size without sacrificing a beautiful Sturmer Pippin, so being people of moderate ambitions as to society, and, indeed, being too busy to devote much time to high class croquet or lawn tennis, we decided on "cutting our lawn according to our space." It was a rough, wild piece of ground, very hummocky and uneven, and, worse still, sloping down hill, otherwise it was charmingly situated



A WEeping HAWTHORN IN THE ROYAL GARDENS, KEW.

much as possible from the front of the border. Michaelmas Daisies and perennial Sunflowers should be transplanted every two years, reducing the clumps to two or three roots, or they will push out all the more valuable plants of weaker habit. The Sunflowers have a very bad way of coming up all over the borders. You can hardly curb them too severely. When you plant Iris and all that tribe do not bury them deep. The *Lilium candidum*, too, is better for shallow planting, but the *Alstroemerias* must be put in the ground a sufficient depth to be safe from severe ground frosts.

It is also a good rule to plant early and late-flowering things, like *Pæonies* and *Aquilegias* and autumn hardy *Chrysanthemums*, in such a position that the rays of the morning sun do not shine on them, for this is very injurious to the flower-buds when frost is on them. *Aquilegia glandulosa* is very susceptible. It is for the fear of these

with the great Yew hedge on one side, a vista of orchard in front, and the shade of a large Apple tree for afternoon tea. The making of the ground had to be taken in hand at once that autumn, and prepared for spring sowing, or we should have lost another year. The first thing was to strip the piece of ground of all the old turf, which as it appertained originally to the orchard was of a coarse quality, full of the most objectionable weeds, the dreadfully troublesome Fool's Parsley being dominant. It was then left for awhile to grow another full crop of weeds, which were carefully pulled up, the ground trenched 18 inches and levelled, the surplus soil being wheeled away; a bank was raised on two sides where now Daffodils make a golden glory in the spring, and by one of which the orchard is approached by turf steps through a hedge of rugosa Roses and Sweet Briar. Stones were raked off as much as possible, and then the ground was

left to the frosts and rains of winter. When the weeds grew again in the spring it was cleaned for the last time, the stones being picked off and the whole surface gone over several times with a coarse rake to pulverise the soil.

Then came the sowing with the very best grass seed procurable from a good firm. This was done with a liberal hand in two sowings, the second sowing crossing the first at right angles, and a perfectly calm day was selected for the operation. The whole plot was then lightly covered with fine soil sifted through a sieve. I believe this is not generally done, but it succeeded perfectly and protected the grass seed from the swarms of birds. A good rolling, first one way and then the other, finished the proceedings. The summer was the one so remarkable for wet; the seed germinated rapidly, and nothing could have done better. The scythe was put over it at first, and the cutting repeated at short intervals. Directly the grass was cut it was rolled, and this process was also repeated as often as possible. By the autumn the croquet lawn was practically made, and was mown with the machine, but, of course, was not played on until the following spring. Altogether it has been one of our successes; it certainly took many hours of hard work, a man only being hired to do the actual trenching; we did the rest ourselves.

One piece of advice I would give in conclusion is never buy cheap grass seed, if you do you will have a very curious composition of Plantains, Wick Grass, and Dandelions, and eventually, in despair, will have to dig it all up again and sow properly, and even then you will probably never be quite free of noxious weeds. The immediate neighbourhood of grass fields or orchard makes it very difficult to keep turf clean, and it requires perpetual care and attention; indeed, the care and tending of the lawns are a great tax on garden resources; but how beautiful grass is about a place. With a little system, clearing one bit at a time, much bad stuff may be got rid of, and it will be some time before the weeds again get ahead.

AUGUSTA DE LACY LACY.

THE ROSE GARDEN.

A ROSE PERGOLA.

SO much has been written in THE GARDEN lately about the Rambler Roses that very little is required to explain the photograph of our rustic pergola. The arches are mostly covered each with one coloured Rose, *i.e.*, the first, Paul's Carmine Pillar; the second, the single white Bramble Rose and Thalia;

the third, Aglaia, the yellow Rambler; the fourth, Euphrosyne, pink, and Leuchtstern, white, with pink edge, rather later in flowering; and, last of all, Dorothy Perkins, which does not begin to flower until the white and yellow are over. I am glad to hear there is a new Thalia which is called a perpetual bloomer.

Eaton, Norwich. MILLICENT GURNEY.

MILDEW-RESISTING ROSES.

IN the course of the excellent paper Mr. Cooling read at the recent Rose show before a large and

cannot raisers devote their efforts to securing a race of garden Roses that shall resist mildew attacks absolutely? Mr. Cooling held that nothing had yet been devised that would check or prevent mildew appearing, and when, as is sometimes seen on large breadths, mildew apparently rampant, it would seem as if his assertion was correct. No doubt mildew is chiefly due to variations of temperature, as may be seen evidenced with Vines, Gourds, Peas, and other products. Would it be possible to elucidate the causes which in certain cases enable Roses to resist the mould? Is the leafage stouter or more glazed, or does it contain some properties lacking in the foliage of others? No doubt Rose growers would gladly welcome both a race of Roses immune from mildew attacks, as also some agent that should be capable of destroying mildew when it does attack existing varieties.

A. D.

ROSE GUSTAVE GRÜNERWALD.

THIS is one of the most promising of the newer Hybrid Teas from a decorative point of view. In the first place its growth is sturdy, hardy, and erect. The flowers are very freely produced, a quality that always commends itself to seekers after garden Roses. Finally there is a beautiful clear carmine-pink colour, with a yellowish shading. There is nothing like this Rose. The form is good, a beautiful circular formation of its petals being a leading feature, and the buds are long and pointed. The habit of the Rose and its apparent hardiness bid fair to make Gustave Grünerwald a variety of much usefulness as a standard or for a strong bush.

P.

ROSE JOSEPH HILL.

THIS is a splendid new Rose, and a great advance on existing sorts. Quite a number of recent Roses have followed previous varieties very closely, and although one could see a difference there did not seem to be sufficient distinctness to warrant their introduction. But in Joseph Hill we have a Rose of real value, both to the exhibitor and the grower for garden decoration. Its foliage is alone worth growing the variety for. I know of no Rose that has such distinct foliage, and the wood is a plum colour. It seems to me that M. Pernet Ducher has produced in this Rose

quite a new departure from the ordinary run of Hybrid Teas. There is something of Souvenir du President Carnot in the Rose or I am much mistaken, but the wood is thicker. The colour is delicate blush, with salmon pink, and a most intense reddish orange shading in the heart of the flower. The petals are stout and waxy, which points to the Rose being a good traveller. Under glass the colour is very intense, and one is left wondering what are its antecedents. In any case we are certain of this, that the Rose world has been enriched by the introduction of such a Rose. The name is given as a compliment to the son of Mr. E. G. Hill, a well-known raiser in the States, whose latest introduction (Richmond) is said to surpass Liberty in usefulness.

P.



A ROSE PERGOLA IN A NORFOLK GARDEN.

greatly interested audience, reference was made to the troubles which affect Roses, and especially to mildew. Whilst it was stated that certain varieties were very susceptible to attacks of this nature, a few others were mentioned as resisting this disease fully. Naturally, as with the Potato fungus, it is desirable to make it known as widely as possible what are the characteristics of the plants that in one case enable them to resist disease materially, and in the other mildew. Not only are Roses greatly crippled when affected by mould, but they are rendered very unsightly.

What are the properties of those varieties which are unaffected by the mildew? And if this assumed freedom from attack applies to these varieties under all conditions of soil or position,

GARDENING FOR BEGINNERS.

SIMPLE HINTS.

EVILS OF OVERCROWDING.—Thick planting, either in the case of flowers, fruits, or vegetables, is responsible for many failures, but the beginner may ask what is meant by thick planting. It is easy to generalise, and it is also easy to take up any given plant or species and say this requires a certain given space. To take the case of fruit trees, the planting of which is being much discussed now, there are object-lessons everywhere teaching us what to avoid. It is certain our fathers in the past planted their trees much too near each other, and this is one of the main reasons why there is now so much inferior fruit that hardly pays for gathering. If we plant Apples, some sorts require more space than others. Peasgood's Nonsuch and Blenheim Orange have wide-spreading branches, and require time to develop their branches before they will bear heavy crops of fruit.

Distance Apart to Plant.—From 24 feet to 30 feet in the case of standards on a free-growing stock like the Crab will not be too much, and such trees will scarcely be at their best till from fifteen to twenty years old. They will bear, of course, more or less in seven or eight years. Smaller-growing trees, such as Stirling Castle, Worcester Pearmain, and others which come into bearing earlier, may have from 20 feet to 24 feet, and this distance permits of a free circulation of air, so essential to the proper maturity of the wood and the fertilisation of the blossoms. Plums and Pears may succeed with less space, as they do not extend so much laterally. Pears especially grow upwards when permitted to a considerable height. If immediate profit is wanted, the greater part of the trees should be on a dwarfing stock, Apples on the broad-leaved Paradise, and Pears on the Quince. But before we decide upon the distance each tree will be permitted to have we must decide upon how we are going to prune. The most profitable ones in my experience are those which are not too much pruned, and the greater part of that pruning is done in the summer. If a tree even on the Paradise stock is permitted to make some annual progress, and this is necessary if the trees are to do their best, we must either plant double the number of trees and remove at least half elsewhere at the end of seven or eight years, or we must plant the full distance and fill in with Strawberries or some other crop which can be removed when the trees extend. And the question now is, What is the best distance? as upon this in a great measure depends the future of the crop. In some cases where the trees have turned out well they were originally planted in rows 12 feet apart and 6 feet apart in the rows. The 12-foot intervals permitted free access for carting on manure and for the use of the horse hoe. In some cases Asparagus was planted in the 12-foot spaces, three rows in each 12-foot space, in other spaces other crops intervened. When the young trees in the 6-foot intervals become crowded half will be carefully taken up and planted elsewhere. Whether we grow for sale or for home use, the question of profit cannot be ignored.

Standard Apples.—And, even where we have faith in the future profit of the tree on the dwarfing stock, some of the wide-spreading, free-growing sorts that require time and will live and be profitable when the trees on the dwarfing stock are worn out should be planted thinly among the dwarf trees. Give the standards from 35 feet to 40 feet, and let them grow up

among the dwarf trees, and in twenty or thirty years' time they alone will be left. There is another advantage in having a few of these vigorous-growing trees among those of lesser growth and stamina. The pollen from the taller trees is easily scattered and helps to fertilise their blossoms, and very often a better cross is obtained. I have never known a case of this system of planting where the trees altogether failed, as they seemed to shelter each other. One of the greatest troubles at the present time proceeds from the ravages of the larvæ of the codlin and winter moths, and no time should be lost now in the arrangement of grease-bands or adopting the still older plan of wrapping Hay-bands round the stems.

Bush and Pyramid Fruit Trees.—These trees are surface-rooting, and must be fed on the surface annually. If this is neglected, failure will in many cases occur. Top-dressings of manure, especially in dry weather, are essential, and the spade should not be used over the roots at any time and nothing planted within 3 feet of the stem.—H.

Lilies in a London Garden.—No flowers are more welcome in October than the late-blooming Lilies, such as *Lilium tigrinum*, *L. speciosum*, and their varieties. The flowers shown in the accompanying illustration were gathered from



LILIES FROM A SMALL TOWN GARDEN.

plants grown on a border facing south-east. However, as the border is in a small garden, enclosed by a fairly high wooden fence, it is not so exposed as the aspect would naturally lead one to suppose. There *Lilium tigrinum* and *Lilium speciosum* *Melpomene*, *s. rubrum*, *s. Krætzeri* (and several forms with Japanese names which differ little from *s. rubrum*) flourish in company with various others, such as *Lilium longiflorum*, *L. elegans*, and *L. umbellatum*. They all grow and flower very satisfactorily in

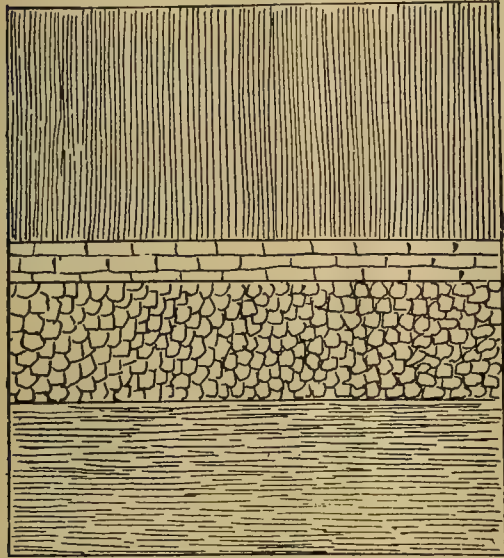
ordinary soil which was well dug, and a good deal of sand mixed with it, especially around the bulbs. Such Lilies as these are as hardy as the hardiest perennials, if only they are given a soil that is not heavy and wet in winter. A wet soil in winter causes the bulbs to rot. Flowers of the Tiger Lily and of *L. speciosum* are very welcome in the month of October, and they may be gathered even into November.

The Importance of Good Walks.—There is much variety in the formation and arrangement of garden walks. In one garden I know of the walks are all straight and square, reflecting the mind of the proprietor, who is great upon figures, and likes to see things square. Another, and this is a very pretty garden, is laid out in curves, and this also reflects the mind of the proprietor, who is a musician of some eminence. Still another garden I may refer to, and this is laid out in little zigzag paths with abrupt endings, which may be classed as a silly effort after the picturesque. But in a garden the utility of the thing should never be lost sight of. One can put up with long, straight walks if they lead to some specially attractive object; but the average man does not always want his walks to be straight, and as a rule he very strongly objects to these mean little wavering zigzags which one sees in some gardens. Even in walk-making there is a certain fitness of things which the sensible man always keeps in mind. Those who live in the country may see many an object-lesson in the arrangement of the country roads and lanes. It is neither necessary nor desirable that garden makers should be in all things imitators, but ideas can be gleaned very often in unlikely places. It is quite possible in the arrangement of the walks to make a small garden appear very much larger than it really is. The pleasantest way of arranging the walks is always to have something hidden as it were, some mystery or scenery that lies beyond our immediate vision and which we are hoping to reach; but scattered along the way are

Many Objects of Interest, such as groups of Roses, handsome trees or shrubs, arches spanning the walk which cause pleasant breaks, and give new trains of thought. I have an amateur friend who is fond of alpine plants, and spends his holiday every summer in the higher regions of Switzerland and Germany, and generally comes home laden with bits of all kinds of plants which he has picked up on the mountains, and which he forthwith proceeds to plant on some specially prepared rocky site. Hence his garden is made up, as one might say, of shreds and patches. The walks wind about, and everywhere there are bits of rockwork or raised beds in all shapes and forms. The plants thrive because he understands all about them, and gives them the situation and the soil they want. I have written thus far to illustrate the thought which is now uppermost in my mind, and which is this: Make up your mind about the garden you want, and work it out bit by bit. If you want a square garden by all means have straight lines, but do not expect your friends who have any taste in such matters to go into ecstasies over your work. If you are a champion tennis player, and do not care much for beautiful flowers or artistic arrangement, then have a square garden, but if you want a pleasant retreat that will be interesting to yourself and friends at all seasons, provide your man with a lot of stumps, take a waggon rope and trail it quietly round in the direction you want the walks to take, the man with the stumps following and sticking them in by the

side of the rope as it winds snake-like over the ground. Here there will be a rough outline of a pleasant and perfectly natural walk, that when revised and the stumps driven home may be left for a day or two to be thought over and studied. When the matter has been well thought out and revised, proceed to dig out and lay down the walks.

Alpine Strawberries fruiting in October and to near the end of the year are among the most



SECTION SHOWING COMPOSITION OF A BORDER FOR VINES OR PEACH TREES UNDER GLASS.

pleasing of all rock garden plants. This long season of fruiting is due to a peculiarly persistent habit and also to the great variety of kinds, including European and Himalayan species. In its turn the variety, as regards the fruits, their size, colour, and shape, is one of the most charming features where various sorts are grown and kept separate. The deep, rich, fresh colours of the fruits are refreshing to sight as well as taste. I find these to fruit nowhere so well as on a part of the sunny rock garden, and though it may seem questionable whether such a position is not too costly a quarter for such rampant growers, we may come to present facts, and ask, What is prettier in the autumn?

Storing Dahlia Roots.—Many people would have more success with their Dahlias had they a more suitable place for storing the roots during the winter months. The plan adopted by many, of suspending from the roof of a dry, airy shed, is not a good one, as shrivelling, more or less, and weak growth in spring are sure to follow. So long as actual frost is kept from them, the cooler the storing place the better. I have found no place better than a cool underground cellar, where shutters could be put to the windows in case of severe frost. Here the temperature is a uniform one, and the roots remain in a plump and sound condition. In places that fluctuate as regards temperature, dry rot often sets in. The best display of Dahlias I ever had was on plants that were not lifted from the border in autumn, but merely covered with mounds of fine cinder ashes; but the position was a dry, well-drained one, and the winter not severe. The fact, however, goes to prove that the roots are far hardier than many suppose them to be.—W.

The Border for Vine and Peach.—It goes without saying that it is important to prepare a good border before planting Vines or Peach trees under glass. If this is not done, a lot of time

and money will be spent afterwards without giving at all commensurate results. It does not matter whether the border is in the house or outside, it should be thoroughly well prepared. The accompanying diagram shows how the border should be formed. The upper layer is the prepared soil, then come the layers of turves, and, finally, the drainage. The portion at the bottom represents the subsoil. For the cultivation of mid-season and late Vines the border can quite well be outside, but if the Vines are to be hard forced for an early crop of Grapes, it is best to have an inside border, because its temperature would not be affected by outside changes of temperature as one out of doors would be. It is a mistake to make a large border to begin with. For the first year it need not be more than 4 feet wide, and the depth should be 3 feet. As the Vines grow and need more rooting space, the border must be extended in width. If the subsoil is heavy, and of close texture, small drain-pipes should be placed sloping towards the front of theinery if the border is inside, and away from it if the border is an outside one. Carefully cover the drain-pipes with large stones to prevent their getting broken. Then place brick rubble 9 inches deep as a foundation for the border. This makes excellent drainage. Upon the drainage place two or three layers of whole turves. These will prevent the smaller soil from choking up the drainage. Then fill the remaining space with turfy loam with which wood ashes, lime and brick rubble, and some well-decayed farmyard manure have been mixed. If each turf is chopped with a spade into four, the pieces will be the proper size and prove far more satisfactory than loose soil, which in a large bulk is apt soon to become sour. The turfy soil and the other ingredients should be well mixed before being used. Make it firm by treading as it is put in.

GARDENING OF THE WEEK.

FLOWER GARDEN.

HERBACEOUS PLANTS AND BORDERS.—The recent severe frost necessitates immediate clearing of much decaying vegetation, for the smell of frozen plants in general, and Dahlias in particular, is disagreeable. This general clearance of the tender summer growth will allow the beds and borders to be thoroughly overhauled for the winter, and now is a favourable time for attending to many hardy herbaceous plants in the way of dividing and replanting, which should be done every alternate year in most cases. It is good policy to do a part each year, for then strong established plants can always be relied on, as well as divided and younger stock to replace them when exhausted. All perennials do not attain their full size and beauty the year they are planted, hence the advisability of lifting but part of the borders annually. For those requiring this treatment this year, and to be replanted in the same borders, the soil must be worked deeply, incorporating plenty of well-decayed animal manure with it, as well as a free dressing of bone-meal if available. Provide a rich larder, for many are voracious feeders, and unless liberally catered for the result will be disappointing.

In dividing herbaceous plants generally, care must be taken in splitting them up not to injure or destroy the stronger buds or growths, and in chopping clumps through with a spade, as is often done, it is difficult to avoid it. To guard against this I suggest the soil should be well shaken from among the roots—for my own part I wash it out where practicable—then with the fingers, a pointed stick, or a rod of iron, as the nature of the clumps to be operated on demands, disentangle, separate, and follow a strong root or a healthy tuft, as the case might be, from root to crown, and not vice versa, as is generally done. The clumps can thus be broken up with little injury to the crowns and growths, which are the very materials required for replanting, and these are what should be invariably selected for replanting. Never plant old decaying centres of close-growing clumps if it can be avoided. In preference plant clean tufts and crowns off the outside.

The arrangement of the plants must, to a certain extent, be a matter of individual taste. Grouped in more or less

irregular masses, regulated according to the length or breadth of the border, each group being planted of one colour, or shades of the one colour, they are generally satisfactory. Where circumstances of limited space or positions do not admit of this free but effective system, others should be carried out in proportion to the space at command, and in harmony with the surroundings. Avoid above all things a repetition of the same plant, or group of plants, placed in a straight line and at exact distances apart. There is surely no beauty in arrangements of that kind; even ribbon bordering is preferable on many points. Push forward with planting on all favourable occasions whenever the soil is in good condition. The sooner they are planted the better will they become established ere the winter sets in. When completed, label the whole correctly and mulch heavily with partly-decayed leaves or other light materials at hand. JOHN ROBERTS.

The Gardens, Tan-y-bwlch, North Wales.

INDOOR GARDEN.

CHRYSANTHEMUMS.—These are usually the predominating feature in the conservatory and greenhouse during November and December. To show them off to the best advantage great taste is necessary in arranging them, especially in harmonising the colours. Damp petals must be pulled out as soon as detected. Cut the

CREEPERS back as much as possible, light being essential to the proper development of the flowers. Ventilate freely on all favourable occasions, and fill up gaps as they occur in the houses with plants from the skeleton frame outside. Make copious notes of the best varieties for any particular purpose required, i.e., tall-growing, good bush, best for cutting, &c. For the latter purpose the single varieties are not grown as much as their beauty deserves. Cut down early varieties as they go out of flower, placing them in a cold frame until the cuttings are required. Very little watering will be necessary.

FORCING PLANTS.—Any of these arriving from the nurserymen at all dry must be thoroughly soaked in a bucket of water before potting. Spiraeas are often spoilt through being potted up dry. Any amount of water from the spout of the watering-can will not penetrate the crowns when once dust-dry, but run down the side of the pot. Introduce a few plants of Rhododendrons (Azaleas) to a gentle heat, and select such kinds as amena, Deutsche Perle, Fielder's White, and Illuminator well set with buds.

CAMELLIAS.—Keep the syringe busy among these on bright days till the buds show colour. They are one of the worst of plants if not constantly attended to. Spray with XL All or a similar insecticide once a week. Give a little weak manure-water to assist the swelling of the buds. Cut out any vigorous shoots from the plants in the beds or borders likely to spoil the shape of the plants. Only sufficient heat to keep out frost is necessary.

LILIES.—The auratum and speciosum types will soon begin to root again. Shake out and repot any of these it is proposed to use again. They thrive in a compost of equal parts of loam, peat, and leaf-mould. Add a little broken charcoal and plenty of coarse sand. Place one to four bulbs in a pot, according to the size used (6 inches to 10 inches), and leave sufficient space for top-dressing later on. Plunge the pots in ashes, and cover with Cocoanut fibre. Place the earliest L. Harrisii near the glass in a warm, moist house when they are 1 inch or 2 inches in height. Bring in another batch, and stand on the floor for succession.

LAPAGERIA.—This plant does best when there is plenty of space for the roots to ramble. Planting out in a well-drained bed or border is therefore the best method. Use a lumpy compost of two parts broken peat and one of fibrous loam, plenty of old mortar rubble, charcoal, and coarse sand. One often hears an amateur enquiring what creeper he can plant in his greenhouse. There are few more suitable than this. Some of the best plants I know of are growing and flowering very freely on the roof of a cool fernery, planted out in a bed made up under the centre stage.

VIOLETS.—Give air freely during mild weather, and mat up the frames on frosty nights. Trim off all runners, and remove damp leaves. On the earlier plants a nice lot of flowers are rewarding the grower.

Royal Botanic Gardens, Kew.

A. OSBORN.

FRUIT GARDEN.

STRAWBERRIES IN POTS.—Preparation should now be made for protecting Strawberries from frost. It is not advisable to do this too soon, as the long spells of wet, sunless weather which are customary between now and Christmas are liable to do them considerable damage. When plunged in the protecting material the plants are so close together that the foliage becomes an entangled mass, and when in this condition sufficient air cannot penetrate amongst the leaves to prevent them from rotting, which they will do during dull, wet weather. This is detrimental to plants which are intended for very early forcing. I am aware that where they are grown in large quantities the work of protecting cannot be delayed. Here, for instance, we grow 10,000 pot plants for forcing, and although we leave them out as long as possible, the majority are plunged before hard frosts sets in. Where they are grown in fewer numbers they are more under control, and may with safety be left till the frost. There are several ways of protecting them. Some have cold frames, where they are plunged in leaves and can be sheltered from heavy rains and snow. This, I believe, is the best mode. But for those who have not got such convenience plunging in coal ashes is the most satisfactory, although it entails more labour. Bracken is often used, and this would be well if it could be kept dry; but in the open, when it becomes wet, it quickly rots, and

its frost-resisting power is gone. It will be found at the end of the season there is a large percentage of broken pots, which adds considerably to the expense of Strawberry forcing. During very hard frost a sprinkling of dry Bracken thrown lightly over the plants will keep off much frost, but it should be removed as soon as the frost is gone. The first two or three batches of plants may be placed under cover ready for immediate use. Should ripe fruit be required at a very early date (the beginning of March is quite soon enough unless they are desired earlier), forcing must begin at the end of the present month or the beginning of December. For this purpose select plants with single well-ripened crowns. Examine the bottoms of the pots and see that the drainage is quite clear. Prepare a bed of Oak leaves in a shallow pit, which should be heated in case of frost. The bed should be only moderately warm, just sufficient to excite the roots into action. The temperature of the pit may be kept about 45° for the first month. Syringe the plants only on fine mornings, and give water sparingly till growth is active.

THE FRUIT ROOM.—Take advantage of wet days to look over the fruit which has been stored for long keeping. This must be done with great care, handling the fruit as little as possible. Open the top ventilators occasionally to sweeten the room, but it is not advisable to leave them always open if the temperature can be kept below 50°.

E. HARRISS.

Fruit Department, Royal Gardens, Windsor.

ORCHIDS.

ODONTOGLOSSUM CORONARIUM and its variety *miniaturum* are now growing freely in the cool house, and well-rooted plants will require plenty of water. Both are splendid Orchids when in bloom, the finely formed rich chestnut-brown flowers, with a varnished-like surface, being always admired, and those who have plants will do well to give them every encouragement during the growing season. The plants thrive well in the same temperature as that which suits *Odontoglossums* generally, and they should be suspended well to the roof glass, where they may obtain the greatest amount of light, and, if possible, at the warmest end of the house. Both plants have a strong scandent habit, each new growth extending several inches in length. Owing to this everyone who has a plant should grow it in a long, narrow Teak wood basket in a shallow

the house in a way that few Orchids of its size can equal. During this their season of growth the plants need to be well supplied with water, and if one part of the house be warmer than the other it is here that the *Sophranitis* should be arranged, keeping them well to the roof glass so that a maximum of light is obtained. The plant may be cultivated in well-drained, shallow pans, using equal parts of peat, leaf-soil, and sphagnum moss, a few small crocks, and a little sand may be mixed with it. Very little of the material is needed about their roots. After the flowers fade copious waterings are still necessary, but when growth is completed less water at the roots will suffice. The roots should be kept fairly moist all through the resting period. *S. grandiflora rosea*, *S. g. rossiteriana*, and *S. cernua* require the same treatment, but the pretty *S. violacea* succeeds well at the coolest end of the Cattleya or intermediate house throughout the year. The pretty and distinct *Dendrobium Victoria Regina* is a species that is usually difficult to manage. It is, I believe, a native of the Philippine Islands, and although coming from such a hot region it is seldom seen in a flourishing condition in our warm houses. After various experiments I find that the plant succeeds admirably in a light position in the *Odontoglossum* house the whole year round. The stems or pseudo-bulbs should be fastened on to a flat Teak wood raft, upon which has been placed a thin layer of coarse peat and sphagnum moss. Suspend it in a horizontal position well up to the roof glass. Give water overhead with the fine sprayer whenever the moss becomes the least dry. It is stated by some authorities that it is naturally an erect grower, but when cultivated as described the growths are pendulous, and have a very pretty effect when in bloom. The flowers, which are now nearly open, are produced alternately from the nodes and in pairs, the strongest pseudo-bulb carrying eighteen flowers. It is probable that some other *Dendrobiums* of the pedilonum section would thrive well under similar treatment. In the

INTERMEDIATE HOUSE such *Cypripediums* as *C. insigne*, *C. i. Sanderæ*, *C. i. Harefield* Hall, *C. i. Dorothy*, and many other distinct varieties of this well-known species, also *C. Actæus*, *C. Adrastus*, *C. A. Hera*, *C. Euryades*, *C. M. le Curte*, *C. arthurianum*, *C. a. pulchellum*, *C. Tityus*, *C. spicerianum*, *C. fascinator*, numerous varieties of *C. lecanium*, and many others are now sending up their flowers, which will require guiding through the luxuriant foliage some of these plants make, or a few may get weighted down under the leaves and become distorted. As regards strong, healthy specimens, where the young breaks are close together, care must be taken when placing in the sticks not to injure the young growths. All the plants should have their leaves nicely sponged over before the flowers open, and each time a plant becomes dry it should be copiously watered. W. H. WHITE.
Burford Gardens, Dorking.

KITCHEN GARDEN.

TRENCHING.—Now that vegetable plots are being cleared, such as Potatoes, Peas, French Beans, &c., some consideration must be given to the kitchen garden, so that by judicious preparation crops of the best quality may be obtained from the ground next year. Future success will largely depend on the measures adopted at this season. Early digging and trenching are most important matters, for by having the ground turned over at an early date full advantage will be obtained from autumn rains, as well as frost and snow, when they arrive, these being, as is well known, natural fertilisers. Through delay in digging operations a great part of the benefit arising from these agents will naturally be lost. The ground, having been trodden while under cultivation, must of necessity be hard, whereas if newly turned over it will be ready to catch and retain the oxygen, ammonia, and nitric acid which rain-water contains. These elements may be more plentiful during summer months than at present, but it is always a good policy to be in readiness to obtain all the help one can, and I would advise that where circumstances allow trenching should be begun at once. Let it be two spits deep, and lay up the surface as roughly as possible, either in ridges or spade-furrows in one lump. Ridges are preferable if they can be made without too much beating with the spade, the object being to obtain a rough, open surface. Let the top spit be laid in the bottom, the bottom one on the top; but if the bottom soil is of an uncongenial nature, part of it had better remain there, though remembering that all must be thoroughly broken up and turned over. An improvement may be made, if

need be, by adding some stuff that has been previously prepared at the rubbish heap.

IMPROVING POOR SUBSOILS.—Gritty road scrapings, leaf-soil, and lime rubble all form excellent material for improving poor subsoils and increasing the depth of shallow ones. The chief aim must be deep, rich soil before good crops of vegetables are forthcoming. Shallow soils made a poor display last May, June, and July, when the weather was so hot and dry. On the other hand, plots of ground that had been deeply dug produced well-grown crops, and this without any extra attention except mulching. As the water supply became scarce mulching was the only alternative. This, with deep digging, was the principal agent in giving crops of Peas, French Beans, Cauliflowers, Potatoes, &c. Their quality was excellent, Peas in particular being very fine this year, and their season has been a lengthy one. The next thing that requires consideration is the manuring of the ground. Where manure is applied it is certainly a mistake to bury it too deeply. If it is placed between the first and second spadefuls of soil, it will then be within reach of the roots of the plants that are to occupy the ground. The question whether a plot of ground shall receive manure or not must be determined after arranging whether a root or Brassica crop is to be grown on the ground. For root crops the less fresh manure the better, but for members of the Brassica or Leguminous family plenty of good manure must be forthcoming. J. JEFFREY.

The Gardens, St. Mary's Isle, Kirkcudbright.

THE FRUIT GARDEN.

APPLE JAMES GRIEVE.

AT the great fruit show held recently by the Royal Horticultural Society this most useful Scotch Apple was well shown. Any variety so reliable as James Grieve is well worth taking note of. We have grown this variety as a cordon for some years, and for the last six years as a bush, and even when only two years old the trees in the latter form were so prolific that the fruits required severe thinning. It has so far never failed to crop, and in this respect I place it as a good companion to Lane's Prince Albert.

Of course, James Grieve is a dessert fruit, and in season now in the south. The tree grows well, and will thrive where Cox's Orange Pippin or Ribston Pippin fails. As regards the quality of its fruits it is excellent. Many may prefer one of the two last named, but James Grieve will be welcomed when the best sorts are none too plentiful. It is just the size for table; it may be described as of medium size. It is a pretty fruit, and well worth room in all gardens as a bush, cordon, or dwarf standard.

G. WYTHES.

AN EARLY PEAR—ASPASIE AUCOURT.

THIS Pear is not much grown, at least, I have not seen it in many gardens, but it is well worth more attention from growers who require an early sort of good quality. It is also grown under the name of *Blanche Claude*, and probably under the latter name may be better known. I am not acquainted with its history, but it is doubtless of Continental origin; at any rate, it is an excellent early Pear. With us, *Doyenné d'Été* is a favourite for early dishes, but the one named above is preferred, as it is larger, and, I think, more juicy, two important points that cannot be overlooked with July or August Pears. The fruits named were ripe on cordon trees on a south wall on July 20, and when upon the Quince stock the trees rarely fail to crop. I notice it was given an award of merit by the Royal Horticultural Society a short time ago under the name of *Blanche Claude*. The cordon trees are very prolific, and make short-jointed fruiting wood. We only have it in this form, but I hope later to give it a trial as a bush, as grown thus it will give a succession to the wall trees. G. W.



APPLE JAMES GRIEVE. (Natural size.)

(Insert of equal parts of fibrous peat and sphagnum moss, affording the plant plenty of space for its large fleshy roots to ramble in. Our plants have just been re-basketed, and for drainage purposes I used long pieces of thoroughly dried peat rhizome. It is advisable to mix a moderate quantity of small crocks and a little coarse silver sand with the compost. When finishing off the potting keep plenty of living heads of moss on the surface, so that in a short time it will form a living covering. The moss should be kept growing freely by means of copious waterings with the fine sprayer.

SOPHRONITIS GRANDIFLORA is a plant that also thrives well in the cool house. The plants are now in full growth, and in a short time some will be unfolding their glowing scarlet flowers, and when these are open they brighten up

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, W.C. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

Legal Points.—We are prepared to answer questions of law which have anything to do with the subject of gardening and forestry. The questions should be as clear and explicit as possible, so that there can be no doubt as to the point of the question. Answers will be found in a separate column headed "Legal Points."

FLOWER GARDEN.

REMOVING HARDY PLANTS (E. A. C. C.).—All the plants named in your letter, with the exception of Pæonies and Christmas Roses, will bear the removal at the time stated with comparative impunity. Do not transplant in large masses intact. Frequently large tufts of these plants transplant very badly, but when broken up and replanted take on a fresh lease of life. With the Pæonies and Christmas Roses you may experience difficulty, and here also the same rule applies. For both groups there is no season in the whole year like September for breaking up the clumps of these and replanting them. Remove these as early as possible in January, breaking up the clumps and replanting without delay. These plants will assuredly feel the shift, but in a much less degree than if disturbed in March and replanted in bulk.

PANSIES AND GERANIUMS (A. Hyatt).—The Pansies may be left through the winter in the open ground, but young plants keep better than the old ones, that is to say, if you had taken the young shoots, which are, as a rule, pushed up from the central portion of the plants about the beginning of August, and dibbled them 3 inches apart in a sheltered border, many of them would be rooted by now, and could be depended upon to pass through the winter without injury. As the season is so far gone all you can do is partially to shorten back the shoots of your plants. The best way to keep the Geraniums through the winter is to lift them from the open ground, shorten any very vigorous shoots, and cut off the larger leaves. Then plant them in shallow boxes, using fairly dry soil to work round the roots, and place them in a window where they will get light and air, and at the same time be free from frosts. They will need very little water throughout the entire winter.

VIOLET PLANTS UNSATISFACTORY (E. O. Parr).—Your Violet plants are suffering from a disease caused by what is termed the Violet fungus. We are constantly receiving similar complaints. In your case the cause may be attributed, in a measure at least, to the age of your plants—four years. The Violet should be treated as an annual, and especially this very strong growing variety, that is, the old plants divided and slips from them planted every spring, about the first week in April. The plants should also be given plenty of room to grow in; 3 feet between the plants is none too much. We plant this variety 4 feet apart in rich soil, and then the plants cover the ground with foliage before the summer is over. We think that your plants being too thick on the ground is the cause of this disease with you more than anything else. By planting at greater distances apart, and mulching the

surface of the ground between the plants in summer with well-rotted manure a much more healthy and sturdier plant is produced. A border facing north or north-east will suit the Violet better than south-east, being cooler and less dry in summer. The best thing that can be done now, we think, will be to cut away the worst of the affected leaves, so that more air and light can circulate around the plants, afterwards dredging the leaves that are left over and under with flowers of sulphur. This will arrest, for a time at least, the spread of the disease, the sulphur being syringed off on the fourth day, and if the surface of the ground in the course of a few days afterwards, when comparatively dry, is lightly stirred with a fork it will help to sweeten and aerate the soil, and, we hope the plants to produce some flowers this autumn and winter.

MOSSY LAWN (Strode).—When moss makes its appearance it is usually a sign that the soil is poor, although it may indicate the need for drainage. You will be able to determine which of these two is likely to be responsible for the moss in your lawn. Draining, however, usually means a lot of work and spoiling the appearance of the lawn for a considerable time, so we should advise you to try and improve the grass. Raking the lawn well stimulates growth, and also gets rid of a good deal of the moss. When you have done this the lawn should be top-dressed with some good soil which has been previously prepared. It should be in the proportion of one of lime to four of good rich loamy soil. We should advise you to add as directed by the manufacturers some good lawn manure. If some two or three weeks after the top-dressing is applied you sow some of the best grass seed thickly, this will grow and keep down the moss. In your part of the country this work might be done now.

HIDALGOA WERCKLEI (C. E. B., Ealing).—This is easily propagated by inserting cuttings in sandy soil, and placing the pot in a little bottom-heat. This may be done at almost any time during the summer if suitable cuttings are obtainable. It would not be safe to leave the plant outside all the winter, even if the roots were well covered, unless one had a duplicate stock under cover. It evidently flowers best in a cool house, although under favourable conditions and on a south wall it will succeed out of doors. The cuttings of *Buddleia globosa* you mention would be better if not moved until the spring, as at that time of the year there is more chance of their taking to their new places. The seeds of *Cyclamen neapolitanum* are best sown immediately they are ripe, either in the open ground or in pots or pans. It would be advisable to sow yours in pots at once, well covering the seeds, and plunging the pots up to the rim in ashes, either outside or in a cold frame. They will then probably come up in the spring. Seeds of *Cyclamen* if allowed to become dry often take a long time to germinate.

A. Birmingham.—There are no insect pests or disease on the Carnation blooms. The reason the flowers are not opening is owing to the damp, cold weather, which has caused the yet unexpanded outer petals to decay.

G. P. O.—The price of turf varies so much in different localities that it is quite impossible for us to say what the cost of laying down your lawn in turf would be. So much depends on how far it has to be carted and on other incidental expenses. The best way, we think, would be to obtain an estimate from two or three competent men. Make sure the turf supplied is good old turf and free from weeds.

E. Grimshaw.—The following Violets are all reliable: *La France*, large single blue; *Marie Louise*, an old frame favourite, lavender, single; *Neapolitan*, the favourite double blue, a large, sweet flower; *Princess of Wales*, very large, rich blue, excellent for frame culture. There is a very large American form, with long stems and large blue flowers, named *California*, but we have not grown it in frames. A good double white is *Comte de Brazza*.

John Howarth.—Of hardy border flowers for exhibition in the months you name you should grow *Roses*, *Carnations*, *Lilium umbellatum*, *L. croceum*, *L. longiflorum*, *L. candidum*, *Delphiniums*, *Lupinus*, *Alstroemeria*, *Sea Holly* (*Eryngium*), *Hollyhocks*, *Campanula persicifolia*, *C. pyramidalis*, *Phloxes*, *Tritoma* (Torch Lily), *Gladioli*, *Pentstemon*, *Gaillardia grandiflora*, *Pæonies*, *Geums*, *Flag*

Irises, *Gypsophila paniculata*, *Lychnis chalcidonica*, and *Helenium*.

S. H. Pearcey.—There is usually no difficulty in obtaining cuttings of the early-flowering *Chrysanthemums*. Choose those that are produced at the base of the stem, and not those produced from the stem itself. If the cuttings are rooted as late as March they will make good plants the same year and flower well in the autumn. To get cuttings of the Japanese and incurved sorts bring the old "stools" into the greenhouse and shoots will soon arise from the base of the cut down stems.

TREES AND SHRUBS.

TREES FOR WINDY PLACE (In Doubt).—The best thing to plant at the back of the spot would be the Austrian Pine, which is a splendid shelter. You might plant these 6 feet apart to make a screen at once, and then later on thin them out to 12 feet apart. In front of these Pines plant some of the following, all of which are suitable for windy places: *Rhododendrons*, *Weigela* (deciduous), *Lilacs* (deciduous), flowering *Currant* (*Ribes*, deciduous), and the *Snowdrop Tree* (*Halesia tetrapetala*, deciduous). You might try *Barberries*, as *B. Darwini* and others, the *Spanish Broom*, *Thorn*, and *Laburnum*. The most important, as you want a screen from the wind, is the Austrian Pine. Plant several rows of this, alternating the plants, i.e., plant the trees of the second row in between those of the first, and so on, so that in the third row the trees will be in a line with those in the first. When the Pines have become established you can plant the choicer shrubs in front.

PROTECTING YEW (E. B. P.).—We can hardly think that your Yews require any protection, as the Yew is a native plant, and one of the hardiest. The proximity of the river, however, may render them liable to be cut by late spring frost, which sometimes injures them rather badly, but never kills them. If the ground is wet it should be drained, as the Yew is more susceptible to injury from stagnant moisture at the roots than from any effect of the weather. If the ground is heavy and clayey it should be broken from 2½ feet to 3 feet deep, throwing out some of the worst and replacing with good top soil. The lower half of the soil should be well stirred, but not brought to the surface unless it is to be carted away and its place filled with better mould. Procure young sturdy plants from 2 feet to 3 feet high that have been transplanted within the last two years. The Yew is a good plant to move provided it has been kept regularly transplanted. You could plant Austrian Pine, Spruce, or Larch as a protection, or you could make some *Furze* hurdles cheaply. The best time for planting Yews is in October, November, or April.

T. B. L.—We cannot learn that Horse Chestnuts can be used in any way, and should think they are of far too astringent a nature to be given to fowls or cattle as food.

Evergreen.—Privet is one of the cheapest and best hedge plants we have. Young trees the size you mention should be planted 13 inches apart. We cannot give prices, but would refer our correspondent to our advertisement columns.

E. S.—Your wall shrub is *Chimonanthus fragrans*, which on a south wall should have flowered by this time. It blooms, as you probably know, soon after Christmas, hence we should not advise you to interfere with your specimen before that time has passed, as it may bloom during the coming season. Should it, however, again disappoint you the better way will be, as soon as you feel sure that it is not going to flower, to thin out the weak shoots, partially shorten back the vigorous ones, and if your plant has a good deal of breastwood spur the greater part of that in. By attention to these matters you will, we fully expect, be rewarded with flowers another season.

Novice.—The best time of the year to transplant the two shrubs mentioned is when the leaves have fallen, that is, about the end of October. Both will succeed in ordinary garden soil, but the *Mezerion* prefers it to be of a fairly loamy nature, while the *Chimonanthus* flowers in a more satisfactory manner when treated as a wall plant than as a shrub in the open ground. The *Daphne* must not be pruned in any way, as it is naturally of a symmetrical habit of growth, while the *Chimonanthus* requires but little. If space on a wall is limited, the shoots should be shortened back after flowering, and those on the front of the tree away from the wall should be spurred in, but in the case of a transplanted specimen the better way is to leave it alone for a year or two. When shrubs such as these are transplanted, give them a good soaking of water, even if the weather be damp.

ROSE GARDEN.

SURPLUS LIQUID MANURE FOR ROSES (C. B.).—You can utilise this to great advantage upon any established plants during the late autumn and early winter. Give the Roses and fruit trees the first supply, and as the liquid is partly rain-water it will not need much diluting. If you can withhold the application until November so much the better, otherwise give the fruit trees the first dose and the Roses later on. If your soil is well drained, two or three applications may be given during the winter. Do not give this liquid manure to land that you are proposing to plant in the spring, for, as a rule, the winter rains render such land quite wet enough. As regards the evergreen Roses for the walls of your house, you would find Bennett's Seedling more beautiful than Dundee Rambler. Alice Gray would be a very suitable one, so also would Félicité Perpétue. Mme. Alfred Carrière is a flesh white, and blooms freely in the autumn. We should advise this for the south-east wall, and Félicité Perpétue for the north-east side.

ROSES FOR BEDS (G. H.).—As you desire to plant the beds 1, 2, 3, 4 for garden effect, you would not be wise in selecting such a kind as Anna Marie de Montravel to contrast with Coralina. This latter makes a splendid bedder, but it grows to a height of about 4 feet, whereas Anna M. de Montravel would not exceed 2 feet. Mrs. W. J. Grant, too, is a very poor grower. The climbing form is far the best to plant, but this would not harmonise with the others. Instead of Mrs. W. J. Grant we should recommend Mme. Abel Chatenay, Caroline Testout, or Mme. Jules Grolez, and in place of Anna M. de Montravel our choice would be Marie van Houtte or Mme. Pernet-Ducher. By all means plant Frau Karl Druschki. For the two large beds on lawn, Nos. 5 and 6, your suggestion of Dorothy Perkins is good for late summer effect, but you would not obtain much blossom in September and October. This lovely Rose if used for bedding should either be planted so that its shoots can be arched over or allowed to scramble over logs. Its blossoms fairly well if the shoots are tied to canes about 3 feet high. Aimée Vibert for the second bed is good. It is a free and continuous bloomer. As a contrast to this plant Longworth Rambler or Grüss an Teplitz instead of Dorothy Perkins.

PLANTING ROSE GARDEN (Light Dragoon).—We estimate the two centre beds, formed like a cross, will take one standard, four half standards, and sixteen bushes. One bed would look well if planted with Caroline Testout, and the other with Grüss an Teplitz. The eight beds marked B would require from twenty-four to thirty bushes each, allowing about 2 feet apart, and planting about 9 inches away from the edge. Certainly Mme. Abel Chatenay must be one, and we would suggest as others Mme. Ravary, G. Nabonnand, Marie van Houtte, Coralina, La France, Augustine Guinoisseau, Marquise de Salisbury, and Frau Karl Druschki. If you desired more variety you could plant, say, three kinds in a bed, and ask your nurseryman to send you varieties that would harmonise with those named. For the arches it would be a good plan to plant a summer-flowering sort and an autumnal variety upon each arch. The kinds we should recommend are:—Summer kinds: Crimson Rambler, Félicité Perpétue, Flora, Electra, Blush Rambler, Carmine Pillar, Rubin, and Euphrosyne. Autumnal kinds: Mme. Alfred Carrière, Réve d'Or, Reine Olga de Wurtemberg, François Crousse, Alistair Stella Gray, Gloire de Dijon, Lady Waterlow, and Waltham Climber No. 1. The small beds marked C would look best with a pillar Rose in each, and for these we would suggest Dorothy Perkins, Longworth Rambler, Climbing Belle Siebrecht, and Alberic Barbier. Borders A would be pretty planted with Carnations and Phloxes in clumps, having as a carpeting the beautiful ever-blooming Violas or tufted Fancies. The borders D which you purpose

planting with Lilies would take about twelve to eighteen bulbs in each section, but of kinds like *L. auratum* fewer could be planted. A few lovely Lilies are *L. candidum*, *L. lancifolium rubrum*, *L. lancifolium Melpomene*, *L. lancifolium album*, *L. testaceum*, *L. auratum*, *L. tigrinum*, *L. chalcidonicum*, *L. croceum*, *L. Martagon*, *L. pardalinum*, &c.

F. A. B.—With few exceptions the so-called Hybrid Perpetual Roses are not perpetual flowering. The true perpetuals are the Teas and Hybrid Teas. There has been lately such a mingling of the three classes named that it is only by mere conjecture one can determine the section to which certain varieties belong.

E. H. J.—A suitable selection would be as follows:—Four blush: Pharisæer, Clara Watson, Augustine Guinoisseau, and G. Nabonnand. Four yellow and copper: Mme. Ravary, Mme. Falcot, Mme. Hoste, and Pierre Cochet. Four pink: Caroline Testout, Mme. Abel Chatenay, La France, and Mme. Edmee Metz. Four red and dark red: Liberty, Louis Van Houtte, Victor Hugo, and Coralina.

Novice.—Maroon crimson is a very unsatisfactory one among Roses; so few of the sorts can be relied upon. We have found that they all succeed best as standards or half standards. The first and best would be Prince C. de Rohan, then Xavier Olibo would follow. If this be budded upon the De la Grifferaie stock, and suffered to remain without transplanting, really fine growth is the outcome. Grand Mogul would be our third selection, and M. Boncenne the fourth. As a fifth select Gloire de Bruxelles, and for sixth Jubilee.

GREENHOUSE.

ORANGE PLANTS (Orwell).—It is no use just cleaning off the scale insects and then leaving the plants alone. There are most probably some young insects left, so that you should wash them again in a few days' time. The best way to keep down these insects is to watch the plants carefully, and when you see any scale, get rid of it at once. By persistently killing the insects you will soon get your plants clean. Scale usually attacks unhealthy plants, so that it is important to keep the plants healthy. Yes, it will spread if you do not get rid of it, and once you get it on Ferns it is almost impossible to clean them, especially such as the Maidenhair. An occasional fumigation with XL Al Vaporiser would help to keep your plants clean.

MALMAISON CARNATIONS (E. J. B.).—Your best plan will be to cut off the diseased leaves, or at any rate those badly attacked, and burn them. Then spray the plants with Bordeaux mixture every ten days or so until there is no sign of the disease to be seen. Bordeaux mixture is made as follows: Dissolve 10 oz. of sulphate of copper in a little boiling water, and add 5 gallons of water. Slake 6 oz. of lime in some water, when it is cool pour it into the solution of copper, and stir all well together. To test the mixture so as to make sure that it will not injure the foliage, hold the blade of a knife in it for a minute. If the blade is unchanged it is all right, but if the steel shows signs of a deposit of copper, add more lime. Be very careful not to give the plants too much water, and keep the atmosphere dry. If these two most important points are attended to during the winter, the plants will most likely grow away healthily in the spring, if you use the Bordeaux mixture now.

TREATMENT OF FERNS (E. Calli).—One important matter is to take great care in watering during the winter months. The Palms will probably not require watering more than once a fortnight, unless your greenhouse is in a sunny position, or the house is heated. In either of these cases water would be required more often, perhaps once a week, or oftener than that. It is impossible to say how often plants should be watered; everything depends upon the conditions under which they are grown. Never let the soil get dust dry, but wait till it is fairly dry before watering. Do not throw water about the greenhouse during the winter months, particularly if it is unheated. Many Ferns are all the better for being left undisturbed for some years, providing they are in fair-sized pots; just remove the surface soil and replace with fresh. If the Ferns have simply a mass of roots that fill the pot

then they should be repotted. If they are large cut the plant in two with a knife and put in different pots. The best time to repot is in the spring, just when they are beginning to grow. Make sure that the pots are well drained. Cut down the old fronds of Maidenhair Fern in the spring, unless they are quite fresh and green. Cut down the oldest growth of your Asparagus Fern in the spring, but do not repot unless the pot is well filled with roots. Give a top-dressing of rich soil.

S. C. S.—*Dierama pulcherrima* is better known by its old name of *Sparaxis pulcherrima*. It is a bulbous plant, and throws up long, arching flower-wands, often 6 feet or more in height, that have been not inaptly termed "fairies fishing-rods." In the type the drooping flowers are of a rosy pink tint, but there is a pure white variety which is one of the most lovely of all plants. There are also flesh coloured and deep maroon varieties.

FRUIT GARDEN.

APPLE TREE FAILING (T. N. Layton).—When the American blight gets a footing in an orchard it is not easily got rid of. A most important matter to attend to is to keep a sharp look-out, and as soon as the smallest patch of cottony substance which covers the insects is seen, this should be destroyed, as it spreads quickly. If there are only a few patches, a thorough wetting with methylated spirit, applied with a small brush, is sufficient. When, however, the insect has spread over a small tree the rough bark of the parts affected should be scraped off, first placing cloths so as to catch all that falls and burn it. It is just as well first to wet the bark with soap-suds so that none may blow away. Then scrub the affected parts with a stiff brush dipped in a solution of paraffin emulsion, making sure that the mixture penetrates the cracks. One of the most effective remedies is a caustic wash, which should be applied in the winter. The "worm-eaten" Apples have been attacked by the caterpillar of the codlin moth, and the fallen fruits (which are probably attacked) should be collected and destroyed. All the loose rough bark should be scraped off the tree stems and branches as far as possible in the winter, or at least before the buds begin to open. Spray with caustic solution.

CLAY SOIL (H. French).—In appraising the value of such a soil as you describe for the growth of fruit trees or any other crops, much depends on whether it is well drained or not. If it is, it is quite possible to convert it into fertile and valuable land for the growth of almost any crop, including fruit trees. On the other hand, if it is not drained, and is frequently water-logged, it would be futile to look for any good results from such land. Presuming that it is drained—or, at any rate, that it can be drained—we think that by far the best way to treat the land, in order to make the best of it, would be to trench it, as early this autumn as possible, to the depth of at least 2 feet, adding plenty of coal ashes, road scrapings, or any opening materials to the bottom clay (which must remain at the bottom, only turned over), and a liberal dressing of cow or stable manure and lime added to the top foot of soil as the trenching proceeds. After this process, the land should be in condition in early spring to produce most sorts of vegetable crops, and in the following autumn for the planting of fruit trees. If Apples are planted on this sort of land, let those be selected which have been worked on the Paradise stock, as they form chiefly surface roots. If Pears, they should be worked on the Quince stock for the same reason. By perseverance in the adding of ashes and other opening materials, with manure, to this land for a few years, with rough digging in winter, it may be converted into most valuable and fertile land. Should our correspondent prefer to treat his land with artificial or chemical manures, the land, as soon as possible, should be deeply dug and the surface left rough all winter. In the spring, towards the beginning of March, the land should be dug over again and then receive a dressing of manure made up of

the following ingredients: Sulphate of lime, 6lb.; sulphate of potash, 3lb.; sulphate of ammonia, 2lb. These can be had in any quantities from manure merchants, and the user can make up as much as he may want, bearing in mind the proportion of each to use. This manure should be applied to the land early in March at the rate of 6oz. to the square yard, scattering it broadcast and forking it lightly into the ground, not more than 2 inches or 3 inches deep.

OLD GARDEN WALL (*F. F. M.*).—For cultural purposes we do not think the old wall would be improved by being cemented over. This process of modernising it would spoil its picturesque appearance. The better way would be to have it re-pointed by a clever bricklayer, taking care first to chip off all the loose and worn-out materials from between the joints of the bricks. The cement used to fill up the joints could be coloured to your instructions, but we think that the natural colour of Portland cement would harmonise well with the bright colour of your old wall. The nail holes made in the bricks themselves are not deep enough to offer harbour to insects during winter. For protecting the blossom in spring against frost there is nothing more effective than a herring net placed double thickness over the trees just before they come into bloom, and allowing them to remain on until the fruit is set, letting the net rest on poles laid over the tree, and not on the tree itself. There are several forms of curl in the leaf, but the most common one is that produced by an attack of black and green fly in spring. The charge of abetting this attack we do not think can be justly laid against your old wall, but rather must be looked for in the eggs of insects left in the rough parts of the bark of the trees, as well as in the pieces of shreds. Clear the trees of all nails and shreds as soon as the leaves have fallen, and then have them washed with a solution of Gishurst compound.

C. Leslie Fox.—Filbert Nuts would not be in full bearing until they were seven or eight years old, and not even then unless a careful system of pruning and thinning the shoots were practised. You must see that there are some male catkins available when the Nuts are in bloom.

Country Mouse.—When the Grapes are cut and the Vines are almost leafless it is a good plan to remove the roof-lights altogether, so that the Vines may be thoroughly exposed to the air. It is detrimental to the Vines to be kept in the slightest degree warm when they are at rest.

H. T. E.—The Quince is a moisture-loving tree, and does well in such a position as by the side of a pond or in a damp corner of the garden, but you could hardly expect it to thrive in really sodden ground. If you have a damp place and want to plant a fruit tree, you could have none more suitable than the Quince. If you mean that the ground is actually sodden, the prospects of success would be slight.

W. J.—The cause of too vigorous a growth usually results from the tree escaping the burden of bearing crops. Once the tree is brought into condition of consistent fertility, then root-pruning need seldom or ever be resorted to. Should your trees have been planted on poor, shallow land, even supposing it to have been well manured and cultivated, the progress of the tree as regards growth and fertility will be much less apparent, and root-pruning seldom requires resorting to. Still, even under these conditions, the trees should have made sufficient progress to qualify them to produce fair crops of fruit every year.

C. T.—So much depends on whether the trees have been planted in soil favourable to their growth, or in soil which is not favourable. The former consists of rather strong, deep, and well-drained loam. On such land the Cherry makes rapid progress, and at the age of four years from planting will have attained a height of 5 feet and a breadth of at least 4 feet if trained as a bush or pyramid, and will be in condition to bear regular and fairly heavy crops of good fruit annually. Should the trees at this age be forming strong growth, and not fruiting to your satisfaction, we should advise you to take them up this autumn, root-pruning the strongest roots, and replant.

Tilston.—The only thing you can do now that the encroaching trees have been cleared away is to give a good top-dressing of rich soil to the roots of the Walnut. Spread it over the soil as far as the spread of the branches. First remove some of the old surface soil and you will then be able to give a larger quantity of fresh soil. Cut out any weakly branches from the tree, for they are of no use, and only prevent sun and air reaching the other branches. Probably the chief cause of the tree giving a poor crop was due to the roots of the neighbouring trees impoverishing the soil and to their branches overhanging the Walnut tree. Having removed these, the crop will doubtless improve if you assist the tree as advised.

KITCHEN GARDEN.

LONG-PODDED PEAS (*J. C. D.*).—There is nothing new in a Pea-pod having eleven Peas in it now. We opened numerous pods of the Gladstone Pea, still the finest late Pea in cultivation, at the Edinburgh show, and found eleven Peas in them. The Peas are tightly packed, the shells fitting close. The pods are curved or scimitar shaped, and if straight many samples at Edinburgh would have been 6 inches long. To produce a variety that is more prolific, has finer, handsomer, well-filled pods, with packed Peas in them of the best quality, will test the capacities of any raiser. It may not be generally known that the raiser of this remarkable Pea is Mr. W. Holmes of Tain, Scotland. In the competing vegetable collections exhibited at the great Edinburgh show we believe the Gladstone Pea was in every one, and generally very fine. Both Masterpiece and Alderman have remarkably fine pods.

GROWING WATERCRESS (*Watercress*).—There are two ways of raising a stock of Watercress. One is by sowing seed in spring, and the other is by divisions of the plant into shippings or cuttings and inserting the same in the soil (or soil and mud) of the stream in which it is to grow. The present is a good time to put the clippings in. The water must be let off whilst the shippings are being inserted, and the crop will succeed much better if some soil can be mixed with the mud at the time of planting, and the flavour of the Cress will be much improved. The shippings should be about 4 inches or 5 inches long and inserted in the mud to the depth of 3 inches, and made as firm as possible to prevent them floating when the water is again turned on, which may be as soon as the planting is finished. The cuttings should be planted 10 inches apart all ways. There are two varieties of Watercress, the dark-coloured and light green. The dark is usually preferred as being of rather better flavour. The bundles, as sold by dealers in the ordinary way, would do for cuttings. We do not recommend the raising of a stock from seed as it takes a much longer time, and the results are not always so satisfactory, the sorts raised being often much mixed and inferior in quality to those on the market. The seeds should be sown in shallow drills on a warm border about the middle of March, and as soon as the young seedlings are large enough to handle they should be planted in a shady place 5 inches apart to gather size and strength, and planted in the stream towards the middle of May. The plants had better not be cut hard the first year, but afterwards the more they are cut the more they will spread. Planks must be used to stand on whilst planting is going on. Seeds may be obtained from any respectable seedsman.

Celery.—As no roots were attached to the specimen Celery stick sent, we are unable to say anything about the condition of the roots, but the heart of the plant is also decayed, and this we think has been caused by compressing the plant too tightly together at the time of earthing up, so that the heart or centre could not extend its growth. This in part has been the cause of the decay. We also think that the Celery has been earthed up too high whilst the plants were growing, choking the heart and helping to cause the decay.

Cabbage Garden.—The objection to allowing decayed and decaying Cabbage leaves to lie and rot on the ground is the untidy appearance they give to the garden, and the unpleasant smell which rises from their decay. The practice, we think, is certainly not one to be commended. It is a good plan to have an open trench about 2 feet deep in some odd corner of the garden where refuse can be placed, and where it can be deodorised by sprinkling a bit of soil or ashes over it, and where ultimately, after decaying, it will form valuable mould or soil. When one trench is filled another can be dug out, and the process extended as far as necessary.

ORCHIDS.

ORCHIDS FOR COOL HOUSE (*Lycaste*).—The winter temperatures for this house should be 53° to 50°. The higher figures are for the last thing at night and the lower for early morning. When very cold weather occurs a few degrees lower will

do no harm providing the atmosphere of the house is kept dry. In the summer the house should be kept as cool as possible. For such a house the following Orchids are among the most easily grown: *Odontoglossums crispum* (of which there are numerous varieties), *Pescatorei*, *grande*, *sceptrum*, *Rossi*, *wilckeanum*, *triumphans*, *excellens*, *harryanum*, *ruckerianum*, and *Uro-Skinneri*. Of *Masdevallias* grow *harryana*, *igneae*, *veitchiana*, and *splendens*. Other Orchids that may be grown in the cool house are *Ada aurantiaca*, *Colax jugosus*, *Epiphronitis Veitchi*, *Sophronis grandiflora*, and *Cochlidoda neoziliana*. You would find all these to be worth growing.

GROWING CYPRIPEDIUM GODEFROYÆ LEUCOCHEILUM (*Godseffianum*).—This form, together with the allied *C. niveum* and *C. bellatulum*, requires very different treatment from other *Cypripediums*. The soil should consist of two parts good heavy turfy loam, the other part made up of leaf-soil, small crocks, and coarse sand, using about double the quantity of leaf-soil to the other ingredients in the third part. Ordinary pots that have holes for suspending should be used. Have some red brick broken up about the size of Walnuts, place a few pieces at the bottom of the pot, then take the plant in hand and see that every root is placed straight downwards; then build up the compost around the roots, working the pieces of bricks in freely among the soil till within an inch of the rim of the pot. There should be rather more brick than soil, but be careful to see all the intervening space between the pieces of brick is well filled up with soil. When potting is finished the compost should be a little below the rim of the pot, and the base of the plant on a level with the surface. Suspend them in the warmest part of the Cattleya house. Do not allow them to become too dry before giving water. For all this section dipping is preferable to watering with a can. If the water used is chalky so much the better.

T. B. Stirling.—The hybrid *Cypripedium* is *C. deedarmanianum*, already well known under that name. The form sent is a very fair one, but not of sufficient merit to be illustrated. It is a very useful *Cypripedium*, and lasts in bloom a long time.

Godseffianum.—This hybrid is a cross between *C. Boxallii* and *C. hirsutissimum*, and can be well grown in the intermediate house. The compost should consist of two-fifths loam, one-fifth peat, and the same of leaf-soil and chopped sphagnum. Mix all together with some small crocks and coarse sand. Water freely when growth is active, and at no time does it require to become very dry before watering.

MISCELLANEOUS.

BLACK CURRANT MITE (*E. E. C.*).—The shoots of Black Currant sent evidence the presence of the Currant mite in every bud. You have no other alternative than to cut the bushes to the ground and burn them. Not a single bud thus swollen will produce fruit. Any attempt at checking this mite seems useless, for remedies of all descriptions have been tried without avail. When you have cut down and cleared away all the bush heads, you may have all soil about the stools removed 3 inches deep, and buried down elsewhere 12 inches, replacing it with fresh soil from the vegetable quarters. Smother the fresh soil and old stools with soot. When new shoots break up next spring, as they will do strong, the buds may be quite free from mite, and keep so for several years. We have no insect pest so difficult to destroy as the Currant mite.

Dulwich.—The sample of slag soil sent, for it cannot well be termed manure, is apparently of little value except as soil. Were it added largely to clay soil no doubt it would materially improve its texture. It would also, very likely, make an excellent dressing for lawns. Unless subjected to analysis, it is not possible to tell whether anything deleterious to plant life exists in it. If you use it for bulbs, as you suggest, do so in a partial sense, lest there be in the soil anything harmful, but we entirely fail to detect anything with customary tests. If it is only ordinary coal clinker crushed up fine, then it is as a manure worthless.

H. J. Stocker.—The greenish worm that you find in your garden is probably (I am sorry I cannot give it an English name) *Allolobophora chlorotica*, one of our earthworms, but without seeing one I cannot be certain. The little

tuberous bodies on the roots of your Beans are formed by one of the bacteria (*Bacterium radicicola*) which make their way from the soil into the roots, where their presence is the cause of the growth of these little galls, which are filled with them, in some way which is not at present thoroughly understood. These bacteria are of use to the plants in enabling them to use the free nitrogen in the air, which is of great service to them, and which they could not do if it were not for the assistance of these minute organisms. These bacteria are supposed to be able to absorb the nitrogen in the air and from it form nitrogenous compounds which are assimilated by the plant, but how this comes about has not yet been definitely proved.

S. H. B. M.—We could not advise you as to the cost of putting in your greenhouse an oil or gas heating apparatus sufficient in power to thoroughly exclude frost, as such cost must depend upon surroundings and the nature of the apparatus used. The cost may be £5, or more or less, but a lean-to house, 18 feet long and 12 feet wide, with corresponding height, would in severe weather—and it is then the real test is found—need a good heating force to exclude frost. We venture to doubt whether any oil or gas heating apparatus could do so much. A proper boiler and furnace fixed at one end of the house, with, of course, a chimney, and a double row of 4-inch piping running the whole length of the house, would alone suffice. If the house be at all exposed to cold winds, some mats should be hung at night or during hard weather round the sides. Any apparatus heated by either oil or gas that is consumed in the house would be injurious to plants, and at the best a poor heating force in severe weather.

NAMES OF PLANTS.—*Mrs. Crossley*.—*Escallonia floribunda*, known also as *Escallonia montevicensis*.—*C. M.*—The Rose is *Fellenberg*.—*Leghorn*.—*Aster cordifolius*.—*F. C. Bullock*.—*Artemisia annua* (annual).

NAMES OF FRUIT.—*Greenwood*.—1, Downton Pippin; 2, Sheep's nose; 3, New Hawthornden; 4, Cornish Gillyflower; 5, Court of Wick; 6, Sandringham.—*W. A.*—1, Bishop's Thumb; 2, Durondeau.—*F. Barnes, Essex*.—1, Bess Pool; 2, Court of Wick; 3, Reineette du Canada; 4, American Mother.—*W. Piper, Devon*.—1, New Bess Pool; 2, Winter Peach.—*T. Conly, Clonakilly*.—A local variety of Apple.—*W. J. Fuller, Crewe*.—Ribston Pippin.—*W. B. Clonmell*.—King of the Pippins; Pears: 1, Doyenne Boussoch; 2, Marie Louise; 3, Beurré Hardy; 4, Beurré d'Amanlis.—*T. C. Leeds*.—1, Beurré d'Amanlis; 2, Beurré Clairgeau; 3, Doyenné de Merode.—*R. W. R., Aiskew*.—1, Marie Louise; 2, Vicar of Winkfield.—*B. E. Wright, Norfolk*.—Apple Norfolk Beefing, a good culinary variety.—*Veld*.—1, Hoary Morning; 2, Jefferson; 3, Keswick Codlin; 4, Cat's Head. Pear Aston Town.—*M. Welsh*.—1, Dumelow's Seedling; 2, Dutch Mignonne; 3, King Harry; 4, Old Hawthornden; 5, New Hawthornden; 6, Margil; 7, Gloria Mundi; 8, The Queen.

THE EDITOR'S TABLE.

SALVIA SPLENDENS.

Mr. Barber, The Gardens, Brentor, Langley Avenue, Surbiton, sends bracts of the brilliant *Salvia splendens* with the following note: "The plants were struck in the spring, and planted out in a bed in the kitchen garden with Arums and other such things. They were chopped round with a spade about ten days before they were taken up, and were then potted in 12-inch pots, in which they made great bushes, and are well worth growing under such treatment as the planting-out system."

A GATHERING OF FLOWERS.

From The Mall, Armagh, Mr. J. McWalters sends a beautiful gathering of flowers, with these notes: "The double or semi-double Welsh Poppies are now very showy. Some time ago I had several beds of them cut down as an experiment, and for some time past they have been flowering freely. Clematis Ville de Lyon on trellis work is very pretty, growing in close company with *Solanum jasminoides grandiflorum*; I send a spray of each. The early flowering Chrysanthemums are really charming. I send a few from the open border, among which The Sparkler and Nina Blick are noticeable. I also include a few seedling Michaelmas Daisies—self sown, and very welcome visitors—and a few blooms of the newly introduced Japanese Lily (*Speciosum magnificum*), which I consider a beauty."

CHRYSANTHEMUM MAXIMUM MRS. CHARLES LOWTHIAN BELL.

We have received some excellent flowers of this new variety from Mr. Charles Dowson, Lintorpe, Middlesbrough. Mr. Dowson writes that they were gathered from small plants put out in

June. These plants commenced to flower in July, and have been in flower since, while even now they are bearing large quantities of bloom. For border work Mr. Dowson says it is splendid, being a mass of bloom from early June until cut down by severe frost. It grows only 20 inches high.

TRICYRTIS HIRTA.

We were pleased to see the flowers of this interesting plant sent by Mr. Fitzherbert, Kingswear, South Devon. Its colouring is very beautiful. Mr. Fitzherbert writes: "*Tricyrtis hirta* is now in bloom in the open garden. A large clump covered with its white, maroon-spotted flowers is a pretty sight."

TUBEROUS BEGONIAS.

From Roupell Park Nurseries, West Norwood, Messrs. J. Peed and Son send some very fine blooms of single varieties of the tuberous Begonia, all cut from the open ground. They are very showy, and in the field must have made a brilliant display. The shades of colour represented were rose, salmon, pink, crimson, scarlet, and yellow.

NEW ROSES.

FOUR new Hybrid Teas are being distributed by M. Pernet-Ducher for the first time this autumn. Their names, together with the raiser's descriptions, are as follow:

Instituteur Sviday.—A Rose of very vigorous and free branching growth. The buds are yellow or yellowish red, and the expanded flowers deep rich golden-yellow, of good size, full and imbricated.

Mme. Jenny Gillemot.—A free and vigorous grower of erect habit, with fine deep green foliage and wood well set with small thorns; buds long, beautifully formed, and nankeen yellow in colour. The flowers are light saffron yellow. They are large, not over full, with fine large petals of good substance. This magnificent variety will prove a most valuable acquisition; its flowers when half expanded are of marvellous beauty, and will make it eagerly sought for for decoration. Like the Hybrid Perpetuals it is perfectly hardy, and can withstand a severe winter without any protection.

Mme. Melanie Soupert.—This is a good grower, of erect branching habit, and fine bronzy green foliage. The flowers are very large, wide-petalled, globular in shape, and half full; colour, a charming salmon-yellow suffused with carmine-pink. A grand exhibition Rose.

Mme. Philippe Rivoire.—A very vigorous Rose of branching habit, with beautiful bronze-green foliage. Flowers large, full, and globular in shape; colour, apricot yellow and nankeen yellow, reverse of petals edged with carmine.

M. Pierre Guillot, Chemin de Saint-Priest, Lyon-Monplaisir, announces two new hybrid Teas raised by him. These are as follow:

Lady Calmouth.—A vigorous grower, with very large, well built flowers, full, globular, and carried on long erect stalks; colour, white, or white very slightly tinged with palest pink.

Miss Milly Crean.—A very large well-shaped flower, full and globular; colour, pale silvery pink; fragrant and a good grower. A. R. G.

BOOKS.

The Chrysanthemum.*—There is good ground for believing that interest in the popular flower has somewhat subsided for a time in the States, but that there has been a reawakening

* "The Chrysanthemum," by Arthur Herrington. Published by the Orange Judd Company, New York.

since the Chrysanthemum Society of America inaugurated its series of annual shows and conventions, the first of which was held in Chicago in 1903. Mr. Arthur Herrington is the president of this society, and his addresses at these conventions prove him to be an enthusiast. "The Chrysanthemum," by Mr. Herrington, is a little volume of 160 pages, divided into twenty chapters, and fully illustrated in black and white. As a practical treatise on propagation, cultivation, hybridising, and growing for exhibition and market purposes, the book is essentially intended for American cultivators. Relating to the introduction of the Japanese, our author seems uncertain as to the precise date of their introduction, but we thought there was no doubt as to this fact. They were not brought over by Fortune, but were sent over by him in 1861 to Mr. Standish of Bagshot, who exhibited them at the Royal Horticultural Society in the autumn of the following year. Again, why will modern authors persist in repeating the erroneous statement that Blanchard was the introducer of the first of the large flowering Chrysanthemums in 1789? If they would only indulge in a little original research they would find it abundantly proved that Blancard was the real name. Mr. Herrington having on page 152 referred to 1859 or 1860 as the probable but uncertain date of the introduction of the Japanese by Fortune, says, two pages further on, "Both the large flowering and Pompon varieties were largely grown and much improved up to 1862, when again Mr. Fortune introduced a new strain in the shape of seven varieties of Japan," thus leading us to suppose that there were really two distinct importations, when as a matter of fact there was only one.—C. H. P.

SOCIETIES.

CHELMSFORD GARDENERS' ASSOCIATION.

A PAPER was read by Mr. Mallett of Colchester on Irises on the 20th ult. He fully detailed the culture of these lovely flowers. Examples of the roots of various groups were shown, and the best varieties mentioned. Mr. Mallett claimed that the Irises rivalled in form and colour the best varieties of Orchids. It was anticipated that the Japanese Irises would be extensively planted in the near future. The ease with which they could be forced into bloom in February and March should make them favourites with gardeners. The Spanish Irises should be planted in dry situations and the English varieties in damp or heavy places.

BOURNEMOUTH AND DISTRICT GARDENERS' ASSOCIATION.

THE meeting of the above association on the 17th ult. took the form of a concert, arranged by the committee in aid of the Royal Gardeners' Orphan Fund. There were about one hundred members and their wives and friends present, and Mr. Charles Stewart, Dean Nurseries, presided, who explained the objects of the fund and asked for a liberal collection. A capital programme of a miscellaneous character was gone through, and listened to by an appreciative audience, several of the performers receiving encores. At the close a hearty vote of thanks was given to the ladies and gentlemen who had so kindly given their time and talent, on the proposition of the chairman, seconded by Mr. G. Watts, Palace Nurseries. The collection realised £2 10s.

THE BATH GARDENERS' SOCIETY. HARDY BULBOUS PLANTS.

THE usual fortnightly meeting of this society was held at the Foresters' Hall, Bath, on Monday, the 23rd ult., Mr. T. Parrott presiding over a large attendance. There was again a remarkably fine display of exhibits, chief among them being Mr. Adam's splendid collection of vegetables, which, in addition to receiving the maximum number of points, was awarded a first-class certificate for excellence in horticulture. Messrs. H. Sparey and T. E. Allen also secured the maximum number of points respectively for their exhibit of some really first-class Pears and Apples. In his opening remarks, the chairman explained the arrangements made for the forthcoming Chrysanthemum show on the 8th and 9th inst., and from the manner in which his remarks were received it was evident that nothing would be lacking on the part of the members and their friends to make the show a success. Mr. W. T. Rich read an interesting paper on "Hardy Bulbous Flowers," dealing in an instructive manner with the best varieties to grow and their culture. A general discussion thereon followed, in which many members took part. Mr. Rich was accorded a hearty vote of thanks for his paper, and a vote of thanks to the chairman terminated the proceedings. Eight new members were elected.

ROYAL HORTICULTURAL SOCIETY.

FLORAL COMMITTEE.—OCTOBER 24.

PRESENT: Mr. W. Marshall (chairman), Messrs. C. T. Drury, H. B. May, James Walker, Charles E. Shea, R. C. Notcutt, William Howe, C. R. Fielder, C. J. Salter, R. Hooper Pearson, William Bain, Charles Jeffries, C. Dixon, E. T. Cook, H. J. Cutbush, William Cuthbertson, H. J. Jones, J. Jennings, J. Hudson, W. P. Thomson, E. H. Jenkins, W. J. James, R. Page Roberts, and E. Mawley.

One of the most attractive, certainly one of the brightest, exhibits was that of zonal Pelargoniums from Messrs. Cannell and Sons, Swanley. There were some three dozen vases of the cut sprays of these flowers. A few distinct ones are Mary Beaton, white; Chas. Curtis, crimson-scarlet; Mrs. Geo. Cadbury, salmon; and The Sirdar, scarlet. The same firm also set up a good display of Chrysanthemums. Silver-gilt Flora medal.

Mr. E. Potten, Cranbrook, Kent, showed Cupressus lawsoniana pyramidalis Potteri, a compact-growing type of this well-known Cypress.

A group of Primula Forbesii in pots came from Mr. E. Dean, Woodvale, South Norwood. The species is good for cool greenhouse, and is very profuse flowering.

A table was filled with good pot plants of Aucuba vera by Mr. L. R. Russell, Richmond, Surrey.

Physalis Bunyardi (P. Francheti × P. Alkekengi) was shown by Messrs. George Bunyard and Co., Maidstone. The plant possesses a distinctly arching character, and the spikes of coloured calyces are of greater length than in the well-known P. Francheti. It is certainly a showy and good plant.

A dozen pots of Nerines were shown by Mr. J. T. Bennett-Poë, Ashley Place, S.W. Miss Willmott, orange or flame scarlet; N. sarniensis corusca pallida, pale red; N. Countess Bathurst, white, lined red; and N. Miss Jekyll were among the more distinct. Silver Banksian medal.

Messrs. W. Cutbush and Sons, Highgate, staged a large group of hardy things that included the early-flowering Chrysanthemums and many varieties of Michaelmas Daisies. Bronze Flora medal.

Messrs. G. Prickett and Sons, South Tottenham, had a good group of Chrysanthemums.

Pots of Cyclamen persicum came from Sir H. B. Samuelson, Bart., Maidenhead (gardener, Mr. A. Tidy), they were well grown and freely flowered.

A group of Saxifraga Fortunei was well shown by Mr. Amos Perry, with pots of Chenostoma hispida, a small bush with pale blue flowers.

A good lot of Tree Carnations in the cut state were well shown by Mr. C. Engelmann, Saffron Walden, Essex.

Messrs. W. Wells and Co., Merstham, Surrey, had a group of Chrysanthemums, singles, in many colours, of which Distinction, pink, and Emily Clibran, bronze, were good. Exhibition kinds were also shown.

Mr. H. B. May, Edmonton, filled a table with Ferns, Bouvardias, and hybrid Veronicas. The latter were especially good and well grown. Silver Flora medal.

The winter-flowering Begonias from Messrs. James Veitch and Sons, Limited, Chelsea, were very good, batches of Agatha, Mrs. Heal, and Ideals being shown. Salvia Pitcheri and Leonotis Leonurus were also in this group. Silver Flora medal.

Messrs. William Bull and Sons, Chelsea, showed a small group of stove and greenhouse decorative plants, as Aralias, Crotons, &c., and Messrs. Peed of West Norwood had Begonia Gloire de Lorraine in its several forms.

Chrysanthemums were shown by several exhibitors, Mr. H. J. Jones showing Moneymaker, white; R. Keynon, yellow; Mrs. A. F. Miller, white; and C. J. Ellis, bronze. Mr. Fairweather, Canterbury, had Chrysanthemum Mrs. F. Penn, a fine yellow Japanese, and a seedling from Countess of Arran.

Mr. H. Perkins, Greenlands, Henley-on-Thames, had two good Chrysanthemums, Miss Codrington being a very fine yellow. Mr. Godfrey staged three kinds, two pale yellows and a bluish white kind. Chrysanthemums were also shown by Mr. A. T. Miller, Leatherhead.

Messrs. Hugh Low and Co. filled a table with miscellaneous plants, as Dracenas, Salvia splendens, Oranges in pots, Begonia Gloire de Lorraine, Bouvardias, autumn Heaths, and Tree Carnations in several kinds.

An unusual exhibit was that of Capsicums from J. Gurney Fowler, Esq., Gileblands, Essex (gardener, Mr. Davis). The plants were in several kinds, and exceptionally well grown and fruited. Silver Banksian medal.

NEW PLANTS.

An award of merit was given to each of the following: *Carnation Victory*.—A yellow ground fancy, and probably the finest of this type in the tree section. The flowers are streaked with scarlet, and are of unusual size. From George Byes and Co., Leicester.

Carnation The Cardinal.—A splendid type of Tree Carnation, with crimson-scarlet flowers of excellent form and fragrance. From Mr. C. Englemann, Saffron Walden.

Antigon leptopus.—A showy and elegant greenhouse climbing plant, producing rose-coloured flowers in terminal and axillary racemes, and in the greatest profusion. The plant is of a tuberous-rooted character, and may be dried off, as in the case of Canarina, and re-started into growth in spring. The plant was first introduced in 1870, and has been found in Mexico, Guatemala, Jamaica, &c. During the season of growth a course of treatment agreeable to the Bougainvillea is suited to it. From E. J. Brooks, Esq., Holdern Castle, Ecclefechan (gardener, Mr. J. Urquhart).

Chrysanthemum Mrs. Frank Penn.—A very fine rich yellow Japanese, good in colour and form. From Mr. Fairweather, Canterbury.

Chrysanthemum Terra-cotta Soleil d'Octobre.—A fawn or terra-cotta sport from bronze Soleil d'Octobre. From Messrs. G. Prickett and Son, Tottenham.

Chrysanthemum Mrs. R. Hooper Pearson.—A large-flowered kind, yellow, suffused bronze. The florets are strap-shaped and drooping. From Mr. N. Davis, Framfield.

Chrysanthemum Norman Davis.—A chestnut red and crimson variety, with broad, flat, drooping petals of great length. From Mr. N. Davis, Framfield.

Chrysanthemum Mrs. A. T. Miller.—A magnificent white of great size, and remarkable for the purity of its flowers. It is an ideal exhibition sort. From Mr. H. J. Jones, Lewisham.

Chrysanthemum Rimmel.—A charming single-flowered yellow, 2 feet high, free flowering. From Messrs. Cannell and Son, Swanley.

NATIONAL CHRYSANTHEMUM SOCIETY.

On the 23rd ult. the executive committee of the above society held a meeting at Carr's Restaurant, Strand, when Mr. Thomas Bevan occupied the chair. There was a very full attendance of members, interest in the business of the evening being somewhat keenly followed. After the minutes and correspondence had been read by the secretary *pro tem*, Mr. Gerald Dean, a rough financial statement was presented, showing a substantial working balance in hand. It was also stated that prize-money to the amount of £45 11s. 6d., inclusive of special prizes, was awarded at the recent October show at the Crystal Palace.

It was resolved that the annual dinner be held at the Holborn Restaurant on the 28th inst., when it is expected that the president, C. E. Shea, Esq., will take the chair. A dinner committee, consisting of Messrs. Simpson, Ingamells, Howe, Hawes, Foster, and Crane, were appointed to carry out the necessary details. Stewards were also appointed to assist in the arrangements connected with the great show in November.

Mr. C. H. Curtis, as secretary of the conference, made a report and said the meeting was an unqualified success. The afternoon gathering was attended by about 110 persons, and the meeting in the evening by a few less. The papers were being printed, and it was hoped would be issued in separate form. The distribution would be free to members, but a small charge was suggested for those who were non-members.

Mr. Witty enquired about the forthcoming Chrysanthemum show in Paris, and replying thereto Mr. Harman Payne explained that a party of four would attend the show, where they had been invited by the National Horticultural Society of France to serve on the jury, that the show would open on the 4th inst., and that two meetings of the congress would be held.

The chairman expressed pleasure at seeing present Mr. W. Hieble, the representative of the recently affiliated French Horticultural Society of London. The election of new members brought the meeting to a close.

FLORAL COMMITTEE.

The meeting of the floral committee, which took place at Essex Hall, Essex Street, Strand, W.C., on Monday, the 23rd ult., was one of exceptional interest. It is a long time since so many fine novelties were staged before this committee. Mr. D. B. Crane was in the chair, and he was supported by most of the members of the committee. The following varieties received recognition: *Mme. M. de Mons*.—A large Japanese flower of Continental origin, having broad florets, pointed, building a heavy exhibition bloom; colour bluish white. First-class certificate. (Wells.)

Mrs. W. Knox.—This is another large Japanese bloom of reflexed form and neat build; colour soft yellow. First-class certificate. (Wells.)

Mrs. D. W. James.—A striking exhibition Japanese flower, the colour bright chestnut, with golden reverse. Early blooms appear to show much of this vivid colour, and the broad petals twist and intermingle; later flowers are of incurved Japanese form, and of even build. First-class certificate. (Wells.)

Beatrice May.—Japanese, with long, narrow petals somewhat twisted; colour bluish white. First-class certificate. (Wells.)

E. J. Brooks.—Large and massive incurved Japanese flower, with long, broad petals; colour deep amaranth, with silvery white reverse. First-class certificate. (Wells.)

F. G. Oliver.—Splendid exhibition incurved Japanese bloom. Petals long and broad, curling and incurving prettily; colour pale rosy lilac, with silvery lilac reverse. First-class certificate. (Mileham, Leatherhead.)

Frank Greenfield.—A beautiful Japanese reflexed flower of striking colour, which may be described as rosy lilac, with silvery lilac reverse. First-class certificate. (Mr. Mileham.)

Miss Codrington.—This is a lovely exhibition Japanese flower, large and full, and reflexed in form. The colour is a beautiful rich butter yellow. First-class certificate. (Mr. Henry Perkins, The Gardens, Greenlands, Henley-on-Thames.)

Mrs. Frank Penn.—A reflexed Japanese flower, a seedling from Countess of Arran. The blooms are large and full, and the colour is rich yellow with a greenish centre. First-class certificate. (Mr. D. Fairweather, Biffons, Canterbury.)

Norman Davis.—This is a cross between Henry Perkins and Lord Ludlow. The petals are long and broad, and make a large Japanese flower of drooping form and high quality; colour, rich deep chestnut crimson with gold reverse. First-class certificate to Mr. Norman Davis, Framfield, Sussex.

Mrs. R. Hooper Pearson.—Another magnificent flower with long broad florets, making a large exhibition bloom of drooping form. Colour, rich canary yellow, tinted chestnut in the centre. First-class certificate also to Mr. N. Davis.

Terra-cotta Soleil d'Octobre.—This is a beautiful terra-cotta sport from the bronze form of Soleil d'Octobre, and a colour that should become very popular. Awarded first-class certificate as a market variety. (Mr. George Prickett, Tottenham and Enfield.)

Warrior.—An excellent market variety, with flowers of a useful size, and of a rich crimson colour, with bronze reverse. The flowers will apparently last well. First-class certificate as a market variety. (Mr. W. J. Godfrey, Exmouth.)

Dora Godfrey.—A charming free-flowering semi-early large-flowered single variety. Beautiful in sprays. Colour, pale canary yellow. First-class certificate. (Mr. Godfrey.)

Miss M. Bird.—Large rosy buff single-flowered sort of good form, and free flowering; colour, rosy buff. Commended. (Mr. H. Redden, The Manor House Gardens, West Wickham.)

The committee also wished to see again

Mrs. Arthur Shield.—A large pure white Japanese of spreading form.

Miss E. Wendam Smith.—A useful market variety, being a cross between Crimson Pride and Souv. de Petite Amie; colour, white, tinted lilac-pink in centre.

NORTH FERRIBY GARDENERS' SOCIETY.

The first annual meeting of this society was held on Wednesday, the 4th ult., in the Oddfellows' Hall. Mr. F. Reid presided over a good company to hear an essay on "Pruning" by Mr. C. Jennings, Aston Hall Gardens. Mr. Jennings, who is a very successful fruit grower, gave a most instructive essay dealing with winter, summer, and root-pruning. A good discussion followed, and Mr. Jennings was accorded a very hearty vote of thanks. There was a splendid display of Dahlias. The society will hold meetings every alternate week for the purpose of discussing subjects of interest in horticulture.

SYLLABUS, 1905-6.

November 1, "Vine Culture," by Mr. W. Simons, Elloughton; November 15, "Organic and Inorganic Manures," by Mr. Dobbs, Elloughton; November 29, "Peaches and Nectarines," by Mr. E. Wright, Cottingham; December 13, "Carnations all the Year Round," by Mr. J. Donoghue, Leeds; January 10, 1906, "Plant Life," by Mr. C. Lawton, Welton; January 24, "Tomatoes and their Culture," by Mr. G. Pickett, Hesselwood; February 7, "Modern Gardening," by Mr. J. Moody, Hull; February 21, "Landscape Gardening," by Mr. Lauder, Ferriby; March 7, "Plants in Pots and their Treatment," by Mr. G. Wilson, Bishop Burton; March 21, "Annuals and their Culture," by Mr. F. Reid, Swanland.

On the 13th ult. Mr. D. Toyne of Hull gave a paper on "Practical Drainage." He showed by illustration the different pipes used, right and wrong ways of draining, &c. A good discussion followed, which helped further to enlighten the members. Ten new members were elected. This shows that the society is likely to flourish. The competition was for two dishes of Pears. There were some excellent exhibits, which Mr. D. Toyne and Mrs. G. Pickett were elected to judge. The members heartily thanked Mr. Toyne for his interesting paper and Mr. F. Reid for presiding.

REDHILL, REIGATE, AND DISTRICT GARDENERS' ASSOCIATION.

THIS society held its fortnightly meeting in St. Matthews School on the 17th ult., Mr. W. P. Bound being in the chair. Mr. W. Wells, the well known Chrysanthemum specialist, read a paper on "The Cultivation and Value of the Early-flowering Chrysanthemum." The lecturer gave a long list of varieties most suitable for this purpose, also the best method of growing them. Some of the kinds mentioned were considered best grown in the natural way, while others needed to be disbudded to produce the best results. A special invitation was given to the members to visit the Merstham Nurseries, where many thousands of Chrysanthemums of all kinds are to be seen in bloom at the present time. About 100 members attended the meeting. A hearty vote of thanks was accorded to Mr. Wells.

SCOTTISH HORTICULTURAL SOCIETIES.

BROUGHTY FERRY.—There was a good attendance at the monthly meeting of the Broughty Ferry Horticultural Association, which was held on the evening of the 17th ult., under the chairmanship of Mr. William Grant. In the Chrysanthemum competition the exhibits were highly creditable to those exhibiting, and the first prize was awarded to Mr. D. K. Meston, The Lodge Gardens; Mr. James Kydd, Forthill House Gardens, was a good second. The subject of the evening's discussion was the relative superiority of the gardener of the past or the present, and a spirited debate took place, in which considerable diversity of opinion was revealed. Mr. Slater made a valuable contribution to the evening's proceedings by introducing the question of the cause of spot in Grapes, his view being that it was greatly due to sulphuring at unsuitable times and to bad ventilation.

BANCHORY HORTICULTURAL SOCIETY.—The members held their annual meeting in the Town Hall, Banchory, on a recent evening, there being a large attendance. A highly satisfactory financial statement was read by the secretary, Mr. G. B. McCartney, from which it appeared that there was a very favourable balance to the credit of the society. It was also reported that the society was otherwise in a flourishing condition. The report was adopted, and much gratification expressed at the favourable position. The secretary and other members of the management were re-elected. An interesting announcement was made by Major Davidson, the president of the society, in which he intimated his intention to give prizes for the best-kept cottage gardens, and also for the best window flower-boxes.

CROYDON AND DISTRICT GARDENERS' SOCIETY.

A LECTURE on the wild flowers and gardens of Japan was given by Mr. Reginald Farrer to the members of this society on the 17th ult., from his own experiences in Japan. There one meets with a style entirely unique, and what would otherwise be a barren waste is beautified by a charming arrangement of dwarf trees, shrubs, and comparatively few flowers. In these gardens one notices the strictest attention to detail in every item. Their taste for flowers is quite opposite to ours, for instance, our national flower, the Rose, as also the stately *Lilium auratum*, are looked upon with almost disdain, whilst other varieties of Lilies like *L. speciosum* and *L. tigrinum* are cultivated largely. The single and double Cherries are also cultivated extensively. A good discussion by the members brought further interest to the lecture, and at its conclusion Mr. Farrer was warmly thanked. Mr. Douglas Young, the chairman, was also heartily thanked for presiding.

LEGAL POINTS.

WINDFALLS (L. B.).—Windfalls of sound timber trees belong to the landlord, but windfalls of trees which are not timber, and all decayed timber trees belong to the tenant. We believe that Apple trees are not regarded as timber. See *Bullen v. Denning*, 5 B and C 842. But you had better ascertain the custom of the country.

NOTICE BY GARDENER (C. S. C.).—A gardener who is engaged by the week should give notice on his pay day. There is no rule regarding the hour of the day at which notice should be given. The notice can be given at any time before midnight. A gardener cannot be compelled to continue his employment, but if he leaves without proper notice his master may recover damages from him for breach of contract. If the master suffers no loss or inconvenience he can only recover nominal damages, e.g., if he immediately obtains another gardener who is as good or better than the man who left without proper notice. If the gardener leaves without proper notice he will forfeit the wages which he has earned up to the date when he leaves his master. A head gardener is a domestic servant, but if he is engaged by the week and paid by the week he need only give and will only be entitled to receive a week's notice. If, however, he is not engaged by the week he will have to give and will be entitled to receive a month's notice in the same way as any other domestic servant. The fact that he is paid by the week will not by itself prove that he is entitled to a week's notice only, although this circumstance will be strong evidence that the man is engaged by the week. Notwithstanding that his wages are paid weekly, he may be entitled to a month's notice, the theory being that all domestic servants are engaged by the year, but that the engagement may be terminated by a month's notice on either side, it being obviously inconvenient that persons in such close relationship should be irrevocably tied to each other for such a long period as twelve months. It is always best to have a definite arrangement as to the notice to be given. See "Law for the Million," published by the *News of the World*.

THE KITCHEN GARDEN.

POTATO SUTTON'S SEEDLING.

FOR some years we have grown the above, and it has never failed us. Some seasons are better than others, and this year it is splendid, not as regards the crop particularly, but the quality, which is first-rate. It is strange how well some kinds finish in a hot or dry summer, and in this respect Sutton's Seedling is one of the best. Although some say that a Potato should always be good, all sorts vary at times. Last year Sutton's Seedling was just as good as regards crop and size, but not so good when cooked, and this was the case with many others. This variety keeps well into the new year, and even when lifted in July it cooks grandly. I have grown some of the newer sorts of late years, but I shall in the future still grow

the one named above. Quality should be the most important point in a new Potato. Potatoes are grown for eating and not for appearance. Sutton's Seedling is a shapely tuber with a russet skin, and is a splendid cooker. G. W. S.

FORCING CAULIFLOWERS.

In many gardens there is a great demand during the early spring, also in the winter, for small Cauliflowers, and this is more readily met where forcing varieties are grown for that purpose. Many rely upon the Broccoli at the season named, but they are not always to be depended upon in our changeable climate. Some object to forced vegetables, but much depends upon how the forcing is done. When grown as naturally as possible the quality is better than in those from the open ground. Three or four of the most distinct forcing sorts are the following. All more or less resemble the well-known Snowball, a variety sent out many years ago by that excellent horticulturist, the late Mr. R. Dean, and the additions since have the same dwarf character and rapid growth. The varieties noted below require similar treatment. They are dwarf, and especially good for pot or frame culture. For a midwinter supply we use pots, and plant out in frames. The pot plants give the earliest heads, but these are not quite so good in quality, the curbing of the root being doubtless answerable for this. Seed sown in September or October will give heads at Christmas, and at that date they are useful. In our case we are supposed to have Cauliflowers every day in the year, but they fail at times. We do our best to meet the demand, and rely upon the forcing varieties at the season named. The seedlings from seed sown now are pricked out in frames when large enough or potted up into 6-inch or 7-inch pots. These are readily covered at night or in wet weather. Artificial food is given to promote growth when the plants become large enough. The most important crop is from February to May, and here we entirely rely upon plants in frames. When planted out much room is not required by these small sorts, but a good root-run and ample ventilation in fine weather. Avoid sowing too thickly. A sturdy plant at the start is important. We prick out the tender seedlings into boxes, give a little warmth, and place quite close to the glass; then later on they are lifted with a ball of earth and planted in the frames. Another plan where frame-room is scarce for a spring supply is to sow thinly on a sheltered border now, and then plant out in frames early in the year or sow in boxes and plant out at that date. Then growth is rapid, as it is an easy matter to have nice heads in from ten to twelve weeks from the time of planting. Frames that have a little heat in the shape of hot-water pipes are best for the midwinter supply, and both then and in the early spring the plants should be near the glass. Plant firmly, and never allow the soil to get dry at the root, even in dull weather, and ventilate freely. The following are the best forcers:

Veitch's Extra Early Forcing.—This is a perfect Cauliflower. The heads are pure white, small, and when forced the growth is very dwarf. It is just the size of plant for pot or frame, and good heads may be out in three months from the time of sowing the seed. When grown in pots it never fails. I like this variety for midwinter use, as it does not button or run if the plants are given good culture.

Carter's Dehance Forcing.—This is equal in all respects to the above, and, though a trifle large, forces well. Not only does it force well, but it is free from seeding. Sow seed in the open now or under glass early in the year. The curd is white and compact, and the stem is dwarf. It is admirably adapted for frames from October to May, and is a most valuable Cauliflower for first cutting in the open ground.

Sutton's First Crop.—This is one of the quickest Cauliflowers to mature I have grown. From seed

sown in March we have cut nice heads in ten weeks with frame culture. It is a splendid variety for forcing, and if sown every few weeks from September to March it gives a regular succession of beautiful compact snow-white heads of splendid quality. The leaves are very small, it occupies very little space, and the heads are just the size for table. G. WYTHES

The French Horticultural Society.—The Société Française d'Horticulture de Londres has just published its annual bulletin. The frontispiece is a portrait of M. Philippe de Vilmorin, of whom a biographical sketch is also given. This society, with Mr. George Schneider as president, renders valuable help to French gardeners living in this country. Meetings are held periodically throughout the year, when papers on gardening subjects are read and discussed. It serves an admirable purpose in introducing French gardeners in this country who would otherwise be strangers to each other. Outings to gardens of interest are arranged, and altogether the year's work is most instructive and interesting. Numbers of English horticulturists are members of this society, and are invariably present at the annual meeting held in January.

A rare British Fern.—When spending a few days at Gwydyr lately I was shown several strong clumps of the forked Spleenwort (*Asplenium septentrionale*) growing within a few yards of where hundreds of tourists pass during the summer months when exploring the beautiful valley of the Conway and onwards to the Pass of Llanberis. I counted about a score of plants nestling cosily in the crevices of an old wall, and subsisting mainly on lime rubbish and an accumulation of decayed vegetable matter—little indeed of the latter. The original discovery of this Fern is curiously interesting, for it occurred many years ago when the Chester Naturalists' Society visited Trefriw and Llanrwst. Mr. McIntyre, agent of the Gwydyr property—a keen naturalist and observer—after having piloted the Chester society over the more interesting parts of the estate, was returning home, and in crossing some fields espied the forked Spleenwort in the crevices of the wall referred to. A find indeed, but too late in the day for the far-famed society to participate in the glory of the discovery. There were only two or three plants at that time, so the increase has been fairly rapid, and I need hardly add that the sanctity of the spot is carefully guarded by the finder.—A. D. WEBSTER, *Regent's Park*.

Lilium philippinense.—This Lily is attracting a good deal of attention in the United States, where it is by some regarded as a new species. The bulbs when first received were said to be so poor that it was necessary to grow them for a year. Under this treatment they improved considerably, so that if this remains a regular characteristic of *Lilium philippinense* annual importations will not be necessary. One of the trade journals mentions that the bulbs were planted on a greenhouse bench in May, the first flowers gathered about the end of July, and a succession was kept up for some time. The strongest stems bore three or four flowers, but the majority only one, $7\frac{1}{2}$ inches across and 10 inches to 12 inches long. To those who look upon this Lily as a novelty it may be news to learn that it was first discovered by the collector Gustave Wallis, in 1871, in the island of Luzon, at an elevation of about 7,000 feet above sea level. Apart from its extremely narrow tube, a prominent characteristic of this Lily is its long, narrow, drooping, almost grass-like leaves. Soon after its discovery *L. philippinense* was introduced by Messrs. Veitch, and about twenty years ago I saw a large quantity planted out in a frame in full flower at Messrs. William Bull and Sons' nursery at Chelsea.—H. F.

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A FLOWER GARDEN IN WINTER.

IT is possible to make a new feature in gardens by setting apart a piece of ground exclusively for the cultivation of trees, shrubs, and bulbs—in short, any plants that flower or are bright with fruit or bark between, say, the beginning of November and the end of February. One might term it “an outdoor winter garden.” For the purpose there would be required a well-drained piece of ground, the soil of which was fertile and open. The situation should be fully exposed to the south and west, but guarded well on the north and east sides by a thick belt of evergreen trees and shrubs. The shelter would be still more complete if the site sloped rather steeply to the south-west. Such shelter would be welcome, not only to the plants that grew there, but to those who might visit and tend them. Plants that carry their fruit into winter might be included, such as the Hollies, especially the yellow-berried Holly; *Cratægus Crus-Galli* and *C. spathulata*; *Cotoneaster rotundifolia*, which is the best of all the *Cotoneasters*, and frequently carries its bright scarlet berries till March; and *Hippophæ rhamnoides* (the Sea Buckthorn), whose orange-coloured fruits are borne in such profusion and retain their colour till past Christmas if the frosts are not too severe. The scarlet-fruited *Skimmia japonica* and its varieties are very ornamental during the winter months, but of these (as well as the *Hippophæ*) it is necessary to grow male and female plants together. Groups of variegated evergreens would not only help to give shelter and warmth, but would also add to the brightness of the garden. The best of them are the golden and silver variegated *Elæagnuses*, the Hollies of a similar character, and the best of the *Aucubas*, of which there are now some very fine forms; the female plants are also very ornamental as fruit-bearers. *Pinus sylvestris aurea*, a variety of the Scotch Pine that turns golden in winter but is green at other seasons, and *Cupressus macrocarpa lutea* are the two best conifers of their class. Many of the variegated conifers lose most or all of their colour as autumn and winter approach.

With regard to the trees and shrubs that bear flowers between November and February,

the number is not, of course, great; still, they constitute a group that is larger, perhaps, than is generally supposed. The following list, which comprises all that we can call to mind, may be useful even to those who would not intend to bring them together in one spot. Some country houses are only occupied during the shooting and hunting seasons, and these winter-flowering plants are of especial value in such places.

November.—*Arbutus hybrida*, *A. Unedo* and vars., *Daphne Mezereum grandiflora*, *Elæagnus glabra*, *macrophylla*, and *pungens* (all delightfully fragrant), *Hamamelis* (*Wych Hazel*) *virginica*, *Jasminum* (winter-flowering *Jasmine*) *nudiflorum*, *Lonicera* (*Honeysuckle*) *fragrantissima*, and *L. Standishii*.

December and January.—*Chimonanthus fragrans* (Winter Sweet), *Clematis calycina*, *Cratægus monogyna præcox* (*Glastonbury Thorn*), *Erica mediterranea hybrida*, *E. carnea* (Winter Heath), *E. c. alba*, *Garrya elliptica*, and *Viburnum Tinus*.

February and early March.—*Berberis japonica*, *B. nepalensis*, *Cornus Mas*, *Corylopsis spicata*, *Daphne blagayana*, *D. Laureola*, *D. Mezereum*, *D. M. var. alba*, *D. oleoides*, *Erica mediterranea*, *Hamamelis* (*Wych Hazel*) *arborea*, *H. japonica*, *H. mollis*, *H. zuccariniana*, *Prunus davidiana* (pink and white forms), *P. amygdalus persicoides*, *Populus* (*Poplar*) *tremuloides pendula*, *Parrotia persica*, *Pyrus japonica*, *Rhododendron altaclarens*, *R. dauricum*, *R. nobleanum*, and *R. præcox*.

ABOUT SWEET PEAS.

SWEET PEAS IN POTS.

AMONG the beautiful flowers which are grown for cutting in spring, Sweet Peas should be included. During the past few years many new varieties have been raised which are improvements even on good sorts of similar shades of colouring. These plants will not bear forcing; they must be grown in a medium temperature to do well, and that which suits the zonal *Geranium* through the winter and spring also suits the Sweet Pea. If subjected to such a temperature good results follow. The happy possessor of a warm frame and a heated greenhouse may grow Sweet Peas in pots to perfection. Pots 3½ inches in diameter are the best for raising the seedlings in; three seeds in each pot are quite sufficient. A sound loam, in which one part in four of leaf-soil is incorporated, makes a suitable compost. The insides of the pots

should be clean and well crocked. The frame is the proper place for the young plants until early in January, when it is advisable to repot the Peas in 9-inch and 10-inch pots, leaving sufficient space for a top-dressing in March and for watering afterwards. Fibrous loam three parts, and leaf-soil and sand one part, should be used for this potting. Directly the roots have well permeated the new soil in the pots, place the latter on square pieces of turf which have been cut about two months; then the roots will also take possession of it, greatly to the benefit of the haulm and blooms. I have treated Sweet Peas in this way, and from sixteen pots of them gathered nearly 5,000 splendid blooms during the latter part of March and throughout April. Some of the pots were placed on the floor, with turves under them, of a greenhouse, and the haulm trained to string fastened to wires under the roof-glass. The height of the haulm was 12 feet 6 inches, and bore blossoms from 2 feet off the ground to the top of the house. Few plants will give us such a return for our labour. AVON.

TWELVE GOOD SWEET PEAS FOR EXHIBITION.

This year I have been testing carefully most of the best-known Sweet Peas with some of recent date, and, finally, consider for strength of growth and flowering, coupled with non-fading colours, the following will please almost all growers up to date: *Lady Hamilton*, mauve; *King Edward VII.*, red; *Dorothy Eckford*, white; *Scarlet Gem*, scarlet; *Mrs. W. Wright*, mauve; *Duke of Westminster*, claret; *Lord Rosebery*, rose; *Gladys Unwin*, pink; *Lady O. Gore*, buff; *Black Michael*, maroon; *David Williamson*, indigo; *Emily Eckford*, blue. In a not too sunny position all those mentioned will do well and retain their full brilliancy of colour. I should like to have put in *Marchioness of Cholmondeley*, a lovely Pea, but the colour is very fleeting. CHARLES W. CROSBY.

Broome Hurst, Dorking.

THE EDITOR'S TABLE.

ROSES WITH BEAUTIFUL HEPS.

Mr. T. Smith sends from Newry berries and foliage of two beautiful Roses at this season of the year. *Rosa moschata floribunda* has a remarkable wealth of berries in large open clusters, against which the robust dark brownish leaves are in strong contrast. Mr. Smith writes: “This is a rampant grower, smothered in summer with deliciously fragrant trusses of white flowers. The plant is now very ornamental through the purplish tone taken on by the foliage and myriads of bright little fruits.”

Rosa nitida var. is one of the most brilliant in colouring of berry and foliage we have seen.

The shoots are like tongues of fire, the leaves only touched here and there with a reddish brown shade. A mass of this in the sunlight must seem from a distance like some gorgeous flower.

A NEW SINGLE-FLOWERED CHRYSANTHEMUM.

From The Nurseries, Exmouth, Mr. W. J. Godfrey sends several blooms of his new early-flowering single Chrysanthemum Dora Godfrey. It is a flower of excellent form, carried on good stalks, and of a most pleasing shade of colour. This may be described as deep sulphur yellow. It is one of the most beautiful single-flowered varieties we know.

ERICA MULTIFLORA IN ITALY.

I am sending you a shoot of the very beautiful Erica multiflora. This Erica is a compact and tufted plant more than 3 feet high, and grows very well in the hot volcanic soil at the foot of Mount Vesuvius. It begins to flower here in September after the autumn rains, and continues to bloom until Christmas. Sometimes it flowers in the spring, also in April and May. The flowers, which are produced in dense clusters at the top of the shoots, are deep pink, the long dark anthers showing conspicuously. Even when not in flower this Heath is very attractive.—WILLIAM MULLER, Vomero, Naples.

CHOISYA TERNATA.

Mr. Field sends from Ashwellthorpe Gardens, Norwich, flowers of the sweet-scented Mexican Orange flower with this note: "It is surprising Choisya ternata is so seldom met with in gardens. I know of nothing more useful at this time of the year, and it is of the most easy culture. Here we have it growing in the open border, where it flowers luxuriantly. It is protected in winter by placing Fir branches round it, not thick enough to prevent the air running through, as by this means the damp does not accumulate. A good mulch with half-rotted leaf-mould protects the roots from frost and helps the plants materially. In very cold localities it is advisable to plant against a south wall, where it does admirably."

PRIZES FOR GARDENERS. NOVEMBER.

FLOWERS FOR THE GREENHOUSE.

A First Prize of FOUR GUINEAS,

A Second Prize of TWO GUINEAS,

A Third Prize of ONE GUINEA,

And a Fourth Prize of HALF-A-GUINEA

will be awarded to the best answers to the following questions:

I.—Name twenty bulbous plants that will flower in a cold (unheated) greenhouse from January 1 until the end of March. Give a short account of the culture they require.

II.—Mention twenty plants (not bulbous) that would flower in a cold (unheated) greenhouse during early spring (until the end of April). Give a few concise directions as to their culture.

III.—To keep a greenhouse bright from September to March (average temperature 50° to 55° Fahrenheit), which twelve kinds of plants would you grow? Give just the important points in connexion with the culture of each.

IV.—Which do you consider to be the twelve best greenhouse climbers (average winter temperature of the house 50° to 55°), free and continuous flowering to be the chief consideration.

V.—Give a selection of berried plants suitable for the greenhouse (temperature as above), with very short cultural notes.

VI.—Give the best six Roses for culture in a greenhouse (temperature as above). State how they should be pruned.

Will all who send in answers kindly read the following rules carefully. Answers to the above questions must be addressed to "The Editor of THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C." The envelopes must be marked "Competition." If this rule is disregarded by competitors, their papers will be disqualified. November 30 is the latest date for sending in answers. Both amateur and professional gardeners may compete. The name and address of the competitor must be written upon the MS., and not upon a separate piece of paper. The Editor cannot undertake to return the MSS. of unsuccessful competitors.

NOTES ON LILIES.

LILIUM HENRYI.

THE drawing of a flowering stem of this Lily, with thirty-eight blooms upon it, which I send, shows what it will do when happy, as it obviously is in the charming and interesting grounds of Mr. Smith (of Messrs. C. Smith and Son) in Guernsey, with whom Lilies are a hobby. Here—in a low-lying, sheltered spot, backed by tall Elms, and surrounded by splendid specimens of rare and beautiful Rhododendrons, Azaleas, Japanese shrubs, Bamboos, and a splendid tree of Embotrium coccineum (in its season a blaze of fire-colour)—they are in large clumps. Tall stately masses of *L. auratum*, established now for many years, and crowded with huge flowers 9 inches across, perfume the neighbourhood, their roots cool and damp, and their heads in the sun. With this treatment and these conditions no Lily stem is less than 6 feet in height, and is clothed with healthy dark green foliage right down to the ground. One stem of *L. Henryi* reaches to between 10 feet and 11 feet; those of the drawing sent are 9 feet. The bulb of this particular plant measured 20 inches in circumference, and weighed 3lb.; it has sent up two strong stems of equal height, the one with thirty-seven flowers, the other thirty-eight, rich orange to orange-scarlet blooms arranged in groups of three on the basal peduncles, of two in the middle, and single flowers for the upper end of the spike.

There is considerable variety and consequent interest in the flowers of imported plants, both in colour and shape. The shape varies from that of a compact ball to a star-fish-like aspect, and in colour from a pale apricot, with white tips to the upper part of its recurved petals, to rich deep red orange with the pronounced tubercles in the centre, such as one seen in *L. speciosum* var. *rubrum*. There is, in fact, the range which one might expect from the hybridisation of *L. tigrinum*, with the extremes of pure white to deep crimson of the *Lilium speciosum*.

Guernsey.

W. J. CAPARNE.

FORTHCOMING EVENTS.

November 14.—South Shields and Northern Counties Chrysanthemum Show (two days).

November 15.—York Show (three days); Liverpool Horticultural Association's Chrysanthemum and Fruit Show (two days).

November 16.—Norfolk and Norwich Chrysanthemum Show, St. Andrews Hall, Norwich (three days).

November 21.—Royal Horticultural Society Meeting. Paper on "Hollies," by Mr. E. T. Cook.

November 23.—National Potato Society's Show (two days).

November 24.—Darlington Horticultural Society's Fruit and Chrysanthemum Show.

NOTES OF THE WEEK.

Crocus sativus and C. zonatus.—Just when the last summer flowers are dying and all is beginning to look untidy in the garden, these two gems push up quantities of their beautiful flowers, which seem to brighten all around them. In the wild and woodland garden they are at home, and, being inexpensive, they should be planted in quantity in groups by the side of the paths or on gentle sloping banks, &c. Here we have them planted in the woodland garden amongst Lily of the Valley. They have been flowering since the first week in October and are still in bloom (the first week in November), notwithstanding the severe frost we have had.—W. J. T., Sandhurst Lodge.

Grevillea Banksi.—A flowering example of this decidedly uncommon species of *Grevillea* was noted at a recent meeting of the Royal Horticultural Society. Like most of the other members of the genus, it is a native of Australia, from whence it was introduced in 1868, according to the "Dictionary of Gardening," and a dozen years ago it received a first-class certificate. It forms rather a bold-growing shrub, with ascending branches, clothed with pinnate leaves, 6 inches to 9 inches long, which consist of five to six pairs of leaflets and a terminal one. The subdivisions of the leaf are about a quarter of an inch in width and 3 inches long. The flowers are collected in a cone-like head, which is about 4 inches in width and depth when fully expanded. As with most of the *Grevilleas*, the showiest portion of the inflorescence consists of the long prominent style, which curves in a downward direction. The colour is scarlet tipped with yellow, the expanded mouth having the same tints. The exterior of the tube is paler and clothed with pinkish hairs. As many as fifty flowers are borne in a cluster, and they remain fresh and bright for a considerable time. The *Grevilleas* belong to a now much-neglected order (*Proteaceae*), though they were decidedly popular in our forefather's days. Other allied plants rarely met with at the present time are the *Proteas* or Sugar Bushes of South Africa, with the *Banksias* and *Dryandras* of Australia.—H. P.

A winter Carnation exhibition.

I much desire to support Mr. Mathias's proposal as to the holding of a winter exhibition of Carnations. It was a curious coincidence that I had just the same thought in mind at the Crystal Palace on the 1st inst., when in contrast to the quantity of huge Chrysanthemum blooms, all so large and so monotonous now, I saw several stands of winter Carnations, notably one from Mr. Mortimer of Farnham, so lightly and gracefully set up in vases on long stems, and could but realise how beautiful would a fine show of these be in mid-winter. What a pity the Royal Horticultural Society cannot see its way to organise such a display in connexion with one of its midwinter meetings. We have a National Carnation and Picotee Society in existence, and it so far has done much to popularise the Carnation as a summer flower; but the winter-blooming section may be regarded as not less important, and perhaps from a commercial aspect is much more valuable, than is the summer-flowering section. Most certainly varieties that have the perpetual habit and flower freely under ordinary house culture are almost legion, and include many that are most beautiful. A winter exhibition of these flowers should include classes for twelve varieties, nine blooms of each, shown in vases; six varieties, the same; three varieties; one vase of one variety; also a table vase or epergne, with draping foliage used; a basket of the same; bouquet; and, not least, a dinner table class, dressed with flowers of Carnations and any foliage. What a beautiful exhibition could thus be made! There is hardly a garden now of any pretensions in which winter Carnations are not grown.—A. D.

Sweet-scented Verbena (Aloysia).—Having seen in THE GARDEN a photograph of a specimen of *Aloysia citriodora*, I enclose a photograph of one in our garden. It has lived in the open without protection for ten years, and measures 43 feet in circumference; its height is between 9 feet and 10 feet. It is in bloom all through the summer.—LILIAN SHELTON. [We are sorry the photograph was not suitable for reproduction.—ED.]

Apple Charles Ross.—This new Apple was shown at the great fruit show in such good condition that it proved itself worthy of the award of merit given a few seasons ago. It was shown better this season than last. The judges commented most favourably on its flavour, and this is the chief test in any fruit, as no matter how handsome, if flavour is lacking it is of little value. As Cox's Orange Pippin is one of its parents good flavour was to be expected. Evidently this new fruit will become a greater favourite every year, and its raiser may well be proud of such an excellent dessert Apple.—G. W.

Phlox Mrs. E. H. Jenkins.—This is one of the most beautiful of all the pure white herbaceous Phloxes. It is by no means a novelty, but for freedom of flowering, large and handsome truss, and reliability in the majority of gardens and soils it is probably without a rival. Within the past three months we have instituted enquiries in many directions with regard to the behaviour of white varieties generally, with the result that the fine vigorous constitution of the above-named sort is referred to in unmistakable terms. It is, indeed, a variety of great merit, worthy to be grown in every garden. As the season for planting such things is with us, I wish to direct attention to this good kind.—SURREY GROWER. [We agree thoroughly with the writer of this note. It is a beautiful variety, and raised by Mr. Jenkins of the Queen's Road Nursery, Hampton Hill.—ED.]

Walcheren Cauliflower.—This old but still one of the very best Cauliflowers was, after so many years trial, given an award of merit by the fruit and vegetable committee of the Royal Horticultural Society on the 10th ult. The stock to which the award was given was very fine indeed. I very much question if the original stock when first sent out was better than the one staged. It was a remarkably fine white close heart, and not coarse, the plant having a flattened head and short leaves. It would be of interest to readers of THE GARDEN if some of our seed-growers would tell us the distinct qualities of the Walcheren Cauliflower and the Walcheren Broccoli; frequently when I have sown them side by side I have failed to discover any. I know that the plant varies in growth. When sown in autumn for early summer use it differs from plants sown in the spring for autumn use; many grow it for both seasons. So far I have failed to see that there are two distinct Walcherens.—G. WYTHES.

Chrysanthemums in Southwark Park.—We are always interested in the Chrysanthemums grown in Southwark Park because of the great disadvantages under which the work is done. The neighbourhood is densely crowded, and the conditions generally are not conducive to the best results. The people who are resident in the neighbourhood, mostly of the working class, are much delighted with the display, and the attendance of visitors during the time the show is open is usually large, especially on Sundays. Most of the leading sections are grown, but, of course, here—as everywhere else—the Japanese varieties predominate. Of these yellows seem to be in great profusion, and comprise many of the finest varieties of recent years. Another colour that contains a large percentage of the best blooms is white, among which Miss Alice Byron is a fine example of its kind. Miss Pockett is also a useful variety, and Lady Byron is another of the same colour. There is a large

display of a pure white sport from Emily Towers, the blooms are very fine and of a nice clear colour. Crimson is well represented by C.I.V. (a large variety of a rich shade difficult to define), S. T. Wright (a fine bright velvety crimson with a metallic reflection), and many others. Other Japanese of various colours but in good form are Bronze Soleil d'Octobre, M. C. Molin (chestnut and gold), and G. C. Schwabe (a great favourite at most of the parks). There are some finely coloured examples of the green Mme. Ed. Roger, which in their young stage are very effective, and excite much curiosity among the visitors. The old-fashioned Chinese incurved is included, but being of less interest is not represented to any great extent. Altogether the collection is bright and fresh, and certainly in as good form generally as we have seen it for some years past.

Clematis davidiana.—I grow this herbaceous Clematis along with several others of the type, but my plants do not reach the height of the one figured on page 273 of THE GARDEN, which represents the variety as a giant. In my case the height is not more than 3 feet. It is a pleasing plant in colour and perfume, and easily propagated by division of the root.—E. M.

Heliopsis pitcheriana.—Apart from the colour of this Heliopsis, I think it inferior in the length and breadth of its florets and the stiff, erect manner in which they are formed. I think H. scabra B. Ladams much superior in that respect. The newer variety (superba), which Mr. Arnott kindly sent me, is much deeper in colour here.—E. M., Hants.

Streptocarpus at Aldenham.—From the displays which Mr. E. Beckett, head gardener at Aldenham House, makes with these plants in London from time to time it has become generally known that the strain as raised and grown at Aldenham is an exceedingly fine one. I saw the plants at the end of September, even then in full bloom, and they had been so since the month of May. One plant of a pleasing pink colour had eighty-four fully expanded blossoms. Royal Purple has flowers 2½ inches in diameter, with a deep purple throat, carrying many large blooms upon one stem. A pure white flower attracted attention with flowers 2 inches across. Magenta, pale blue, rose, and other colours were all distinct and showy. In the near future many interesting breaks and improvements will no doubt be effected. The plants exhibited remarkable health and vigour, leaves 1 foot long and 9 inches wide all growing in the ordinary 4½-inch pot and two years old.—E. M.

Lobelia tenuior var. rosea.—Only a few seasons ago Lobelia tenuior was prominently brought to notice. Though introduced from Western Australia many years ago it has only recently received an award of merit from the Royal Horticultural Society. It may be remembered that it was then exhibited as L. coronopifolia. It has now given rise to a variety having rosy mauve flowers—L. tenuior var. rosea. In habit, size of flowers, and all characters other than colour, this variety closely resembles the species, being slender and about 18 inches in height. Flowering profusely from spring till autumn, it is a valuable plant for cool greenhouse work. Not only does L. tenuior seed freely, but it may also be propagated from cuttings. When growing either the species or the variety it is well to have three plants in a 3-inch pot. Few plants suffer so much as this from over potting.—H. C.

Kew Palace.—Until within the last six months very few of the thousands of visitors to Kew saw even a glimpse of the palace unless they were previously aware of its existence. From only one or two points in the grounds could a view of it be obtained. This was partly due to a number of trees, but the chief obstruction was a row of buildings formerly used as stables. In the spring these were pulled down, and a beautiful view of the palace was then obtained from the

broad walk. Considerable work is now in progress to complete the opening up of this historic building. The wall enclosing the old stable yard has been cleared away, and the ground added to the gardens. Some of the commoner trees and shrubs have been cut down, while others are being lifted and transplanted a little distance away. Considerable levelling of the ground is also being carried out. It promises when completed to add yet another to the many improvements carried out in these gardens during recent years.

Vitis Brandt.—This American Vine is excellent for the manner of growth and for its richly-coloured leaves in the autumn. As a fruit-bearing variety it is exceptionally free, and when the fruit does happen to ripen the flavour is quite good. As a pergola or pillar plant it is most valuable, growing vigorously and compactly, the leaves turning a pleasing rich tint of colour quite early in autumn.—E. M.

THE FLOWER GARDEN.

DAFFODILS FOR FORCING.

PROBABLY one of the earliest batches of forced Daffodils ever seen was that exhibited before the Royal Horticultural Society—if memory serves me right—on February 9, 1886. A small gathering, I admit, but the importance of which was then unknown. In its way it was an eye-opener, and the obvious lesson it conveyed was by no means lost on men of business. This small gathering of flowers was sold the following morning in Covent Garden for a large sum. To some extent the present writer had to do with the small gathering referred to, and is therefore able to look back upon the beginning with a certain amount of pride. It was a year later that the Daffodil began to appear in some quantity in Covent Garden Market, the bunches of flowers readily realising as much or more than a dozen bunches at the same time of year now.

Having been one of the first to force the Daffodil in quantity for market, forcing a year or so later something like a total of 300,000 during the first two months of the year, it is interesting to record to-day that the principle then adopted has answered all these years, and in practically the same form. To-day, as in the past, the chief points to aim at are (1) early potting or planting to ensure the fullest quantity of roots being made, and as early as possible; (2) providing the bulbs with a long preparatory season plunged in the open, and where the progress would be almost identical with those planted in the ground; and (3) to avoid first placing the bulbs in heated structures. At first cold houses are best, giving free air meanwhile, with ample moisture both at the roots and in the atmosphere. Drying conditions are harmful at all times. For the earliest planted bulbs mid-November is a good time for housing, closing the structure a fortnight later with the pipes only warmed. Heat may be increased as the natural growth advances, and though this is very slow in the early stages it is quite visible to the practised worker. Excessive heat in the pipes, and therefore a too arid atmospheric condition, must be avoided. This alone has produced many failures in the past, and particularly the so-called "blindness." Steaming the pipes when these are unduly heated brings much the same result, and should also be carefully avoided. The temperature may range between 45° as a minimum and 60° as a maximum. Avoid hard firing in cases of severe frost or heavy fogs; much artificial heat at such times is extravagant and useless. Good trumpet varieties for earliness are major, obvallaris, Ard Righ, Golden Spur, and Princess; these flower in the order given. Of doubles the only one of real value for early forcing is the well known double Daffodil. As a variety impatient of artificial heat, and strongly

opposed to a too early start indoors, the well-known *N. poeticus ornatus* is a notable example. Broadly speaking, greater progress is made by this sort when kept in the open till the end of the year.

Hampton Hill.

E. H. JENKINS.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

POTATOES NOT DECAYING.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Permit me to call attention to a reply to a correspondent, page 261, on the subject of seed Potatoes not decaying in the ground after being planted. Dry seasons, dry or poor soil, and late planting were suggested as probable causes why the tubers in question did not decay, but I think we must look further to find the real cause. This season thousands of tubers in different places have failed to decay in the ground, and in most cases where the seed Potato did not decay the growth was weakly and of a spindling character, the edges of the leaves were crimped and curled, and the crop, if any, consisted of a few little tubers about the size of marbles. The reason of the failure of the tuber to send up strong growth, itself decaying, and producing a full crop, can be traced to the presence of a disease commonly known as "leaf curl," on account of the way the leaves turn rusty and curl up round the edges. This disease has become very common of late years, and is responsible for heavy losses amongst Potato crops. I notice that the trouble is worse with some varieties than others, and this year Sharpe's Victor, Evergood, and Northern Star have suffered severely through the disease referred to. It is stated in the reply, on page 261, that the decay of the tubers can easily be facilitated, from cutting a small slice from each a short time before planting. If there is nothing wrong with the tubers the above practice may answer, but if they are affected with the disease I have referred to cutting will have no effect on them, and to prove it I may say that last spring I planted a number of cut Potatoes, which came out in September just as hard as on the day they were planted. I may add that in all cases where the tubers decayed the growth was strong and the crop satisfactory, but where the tubers failed to decay the growth was weakly and the crop a failure. If only a few plants in a breadth of Potatoes act in this disappointing manner one hardly notices it; but if, as they have done in many cases, three parts of the seed tubers fail to decay, and also fail to make satisfactory growth and produce a crop, then the loss becomes serious.

So far as I know the best way of protecting one's self against this trouble with Potatoes is to set up the seed tubers in shallow boxes in the early spring to sprout before planting. If any of the tubers fail to start growth, or if the sprout they make is of a thin weakly character, the best plan is to throw them out, and only plant those tubers which are furnished with stiff bristling sprouts. I may say that up to now I have had no disappointment through tubers failing to grow from seed Potatoes obtained from Scotland.

Gloucester.

G. H.

HERBACEOUS PHLOXES—THE TWELVE BEST.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—At this time of year it would be interesting to have a list of the twelve best autumn Phloxes, "best" in this case meaning those that are showiest in the garden. I must confess to a liking for the dwarfier varieties, as then staking is not required.

Tapis Blanc is a grand white, with fine large smooth flowers, huge spike, and dwarf stature. It is rather early, so that it does not displace

Sylphide, which is also a magnificent white, but somewhat taller and later. I see no use in giving the heights of my plants, because the results achieved on this dry soil, and after a dry summer, would probably mislead. A deep cool loam, with a good mulch, and the hoe constantly at work, is the recipe for growing these plants well. No one can afford to be without

Coquelicot I never could grow well. In these parts the incapable gardener puts all his failures down to the soil, which certainly is atrocious. Either *Coquelicot* does not like the soil or it has a grudge against me. All the same it is a more intense and brighter colour even than *Etna*.

Mounet Sully grows well—rather tall, in fact. It is a splendid colour—a real orange scarlet with a purple eye. I saw Mr. John Forbes showing it finely at Shrewsbury one year, and have grown it well myself for several years.

Tragédie, procured at the same time, came to a tragic end, as it shrivelled up almost before it flowered, and I really forget whether soil or drought or both were at fault. As far as I can remember it was a good red.

Maximilien is another orange scarlet which will be in high favour when better known. I saw it at Messrs. I. House's nursery a year or two ago, and noted it down to get as soon as it became more plentiful.



ROSE MRS. EDWARD MAWLEY.

Miss Pemberton.—It is one of the finest hardy plants that have ever come from Cheshunt. It is rather early, fairly dwarf, with a huge flower, and the colour is gorgeous—a rich salmon pink with a crimson eye. Without question it is one of the best Phloxes I have grown.

Roger Marx is one of the best of the Lemoine seedlings, and this is saying a good deal. The habit is excellent, the spike symmetrical, and the flowers are enormous. I like its tone of colour immensely—the catalogues call it orange carmine with a bright purple eye. To me this description scarcely reads aright. Carmine often means crude magenta, but in this case there is no suspicion of such a colour. *Roger Marx* is not a tall grower. I suppose everyone knows and grows

Etna.—If there is a reader to whom it has not yet been introduced I can only say lose no time in ordering it. For a real downright gorgeous effect in late July and early August this is the plant, and there is undoubtedly nothing to equal it until *Lobelia cardinalis* flowers in September.

Duhamel, a rich orange red, and *Fort-de-France*, coppery salmon, are said to be two of the best of the new Lemoine seedlings, so I am giving them a trial.

Eugene Danzanvilliers received an award of merit from the Royal Horticultural Society in 1897, but old age has not detracted one whit from its charms. The lilac bordering to the flowers is about as perfect as anything I have ever seen in Phloxes, and if Messrs. Lemoine's *Salvator Rosa*, which they describe as "perfection de la variété *E. Danzanvilliers*," can surpass it we shall indeed have a plant worth growing. Of course in neither size of spikes nor blossom can *E. Danzanvilliers* compare with the newer seedlings. It is its colouring which makes it so indispensable.

Mme. Neera has been wonderfully fine here this season, but although it is of good habit its flowers can scarcely be called a pleasing shade. French white edged with slate colour.

Pharaoon I like much better. This has flowers of the largest size, white bordered with lilac-

rose. The spikes are enormous and the plant grows well.

Adonis, Henry Murger, Pantheon, Le Soleil, and Faust must be well known to everyone. I retain each because their respective habits are good and the colours clear and refined. The so-called blues are not of much effect in the border, and although Renomé, Le Mahdi, Gloire de St. Marc, Iris, and Lord Rayleigh are often well spoken of they have never quite taken my fancy. Among the dwarfs I want nothing more beautiful than Messrs. Lemoine's

Japonais, which grows about 18 inches high, is of perfect habit, and of an exquisite soft shade of salmon rose. No other variety that I know of possesses so much charm as this. It blooms from the end of August until October, and should be put in the forefront of the border.

Nothing can be more hideous, to my mind, than some of the magenta-hued sorts. *Eclairer*, *Epopée*, *Le Vengeur*, &c., are commended in most lists, but their effect in the garden is displeasing to the majority of people. We have so many of clear and decided colouring that there is no room for those that are crude and harsh. At Shrewsbury this year some of the most telling of the newer varieties were *Henri Regnault*, *Jules Cambon*, *Mrs. James Farquhar*, *Mrs. Oliver*, *Spirite*, and *Adrien Franchet*. The best twelve varieties I grow are as follows: *Etna*, *Roger Marx*, *Mouret Sully*, *Miss Pemberton*, *Maximilien*, *Tapis Blanc*, *Sylphide*, *Japonais*, *E. Danzanvilliers*, *Henry Murger*, *Adonis*, and *Pharaon*.
Worcestershire. A. R. G.

THE MEXICAN ORANGE FLOWER (CHOISYA TERNATA).

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Having read the articles in THE GARDEN concerning this lovely plant, I thought it might be of interest to some of your readers to know that it thrives and grows here into good-sized plants without any protection whatever. We have several large plants in a mixed border, one plant measuring 7 feet in height and 10 feet in breadth. They are now (October 21) a mass of bloom, although the scent is not so powerful as in summer. We grow a number of plants in pots, and find them very useful for house decoration during the summer months; but unless carefully watered the foliage soon turns a sickly yellow colour. During the winter our pot plants are plunged in ashes in the open air.

A. E. SUTTON.

Castle Howard Gardens, Welburn, York.

THE ROSE GARDEN.

ROSE MRS. EDWARD MAWLEY.

FAVOURITE Rose with exhibitors, and one seldom absent from the winning stands in the Tea classes at Rose shows, is *Rose Mrs. Edward Mawley*. It is a finely formed flower, large, with high centre and reflexing petals. The colour is pink, shaded with salmon; sweetly scented. This Rose was sent out by Messrs. Alex. Dickson and Sons, Limited, Newtownards, in 1899. It has obtained the gold medal of the National Rose Society, and for exhibition purposes is one of the best.

JOTTINGS ABOUT ROSES.

(Continued from page 241.)

LE PROGRES.—Undoubtedly this variety constitutes a striking advance in this class. Wood short, light green with red thorns; habit of growth dwarf, resembling that of *Mme. Ravary*; leaves small, dark green and shiny. When at their best (half expanded)

the flowers are of a wonderful shade of rich apricot yellow suffused with orange, gradually fading to pale apricot. The buds are pointed, and as the blossoms have only five or six rows of petals they quickly open. In colour this Rose easily surpasses *Billiard et Barré*, and one can but wish that it possessed more vigour. I should advise all who admire *Mme. Ravary* to give *Le Progrès* a trial on account of its richer and more constant colouring.

Mme. Hector Leuilliot.—This is making strong growth with me, and bids fair to be a semi-climber. I fancy that it would be best described as a *Dijon Tea*. A large globular yellow flower tinted with orange and carmine in the centre. A variety that will become popular when better known, as its colouring is very fine.

DEFICIENCY OF COLOUR AND ITS CAUSES.

Of course in glancing through the list of varieties described, one can see at once that the weak point is the deficiency of good reds and crimsons. On the question of colour, or rather the absence of it in this class, Mr. Pemberton made some pertinent remarks at the last Rose Conference (vide *Journal of Royal Horticultural Society*, Vol. XXVII., pages 533 and 534), which are worth quoting here. "Why is it," he asked, "that the Hybrid Tea class, speaking generally, is so deficient in reds of a decided colour? Of Hybrid Perpetuals we possess magnificent reds, such as *Horace Vernet*, *Charles Lefebvre*, and *Victor Hugo*. When shall we have a *Horace Vernet* of the *Caroline Testout* type, robust, constant, and free? Year by year we eagerly scan the lists of new Hybrid Teas, and inspect the stands of new Roses; but although in *Bardou Job*, *Marquise de Salisbury*, *Liberty*, and *Grüss an Teplitz* we have some good reds, yet for the most part the gold medal Roses are pasty, washed-out looking things. We want something definite—a good red, dark and vivid. . . . and to the raiser who supplies this we shall accord a hearty greeting."

This was in 1902, and Mr. Pemberton's remarks almost hold good to-day. After all it is not a difficult matter to answer the question put by Mr. Pemberton, if we bear in mind that all our Tea Roses have been raised from the blush variety introduced from China in 1810, and the yellow variety received fourteen years later. Naturally enough the offspring of these are preponderantly light coloured, and the influence of this strain is seen in nearly all of the Hybrid Teas of the present day. Probably we shall obtain some good deep coloured flowers in this section when raisers have had time to cross the best of our modern Hybrid Teas with the grand dark crimsons of the Hybrid Perpetual class. Where distant effect has to be reckoned with the dark crimsons are of no use in the garden, and it is, therefore, the exhibitor who is so anxiously awaiting a Hybrid Tea fit to compare with *A. K. Williams*, *Horace Vernet*, *Victor Hugo*, or *Charles Lefebvre*. *Liberty*, *Marquise de Salisbury*, and *Lady Battersea* are good "garden" varieties, while *Grüss an Teplitz* (which, by the way, I do not consider a true Hybrid Tea) is indispensable in autumn. What we really do want for the garden is a scarlet *Mme. Abel Chatenay*, which would retain its colour well; it will, indeed, be a veritable triumph for any raiser who can accomplish this. One would imagine that grand old Hybrid Perpetual *Captain Hayward* would be an excellent

variety to select as a seed parent to cross with the Teas. I feel quite sure that we shall soon obtain what we are in search of, sooner indeed than many people think.

ARTHUR GOODWIN.

The Elms, Kidderminster.

(To be continued.)

THE FERN GARDEN.

THE MALE FERN.

LASTREA FILIX-MAS AND L. PSEUDO-MAS.

ONE of the most prevalent of our native species is the common Male Fern, being found practically everywhere where Ferns are found at all. As a wayside Fern it peoples the ditches and hedgerows in most parts of the country, where it has not been rooted out by the various species of vandal, and in every shady glen or combe fine specimens assert themselves boldly amongst the other species present with fine upstanding fronds 4 feet or more high. In town gardens it is the chief representative of our native Ferns, prevailing to such an extent that hundreds of thousands must exist in London gardens alone, even the smallest and humblest usually displaying a few. Strange to say, amongst all this profusion it is extremely rare for the Fern connoisseur to detect a specimen of any of the very beautiful varieties which exist; the common type is repeated *ad nauseam* by the dozen or score or more, according to space, every one of them the produce of a Fern raid in Ferny places, either by the owner, country folk, or tramps, who spoil these Ferny surroundings by rooting up the Ferns to supply the markets represented by the nurseryman's shop with its boxes of native Ferns under the counter, or the street hawker with his barrow. The Ferns so obtained are usually dumped into the soil utterly irrespective of sunshine or wind, and only survive owing to their tough constitution, and, often despite this, in a most woebegone condition. These collections, forsooth, are called British ferneries, and British Ferns, as a rule, are judged accordingly as only fit for stopgaps. Now, in our own collection proper of British Ferns we have had for over thirty years a specimen Male Fern of the right kind, fitly termed the King of the Male Ferns. This is in a large pot and surrounding a stout trunk 1 foot and more high (*L. pseudo-mas cristatus*). It has at this moment of writing a grand circle of fourteen fronds, each fully 4 feet long, and with the tips and wide divisions all bearing beautiful tassels. A grand tasselled Tree Fern in point of fact, and handsome enough to grace the most aristocratic conservatory existing. Out in the open is another specimen about ten years old, minus the trunk, but nearly as large. As a neighbour to the King we have another Male Fern (*L. p.-m. polydactyla*) (Wills); this has five fronds about 5 feet long, much broader than the other, and with wider tassels, so that it is very distinct, and a third (*L. F.-m. polydactyla*) (Dadds), which is laxer in habit and forms a fine circle of seven or eight fronds, all tasselled on its own particular lines, and thus again distinct.

Here, then, we have three grand decorative Ferns, which utterly eclipse the common type both in size and beauty, and yet are equally hardy and easy to grow. The two first named, we may add, are perfectly evergreen under glass and in sheltered positions in the open, the third is deciduous, i.e., the fronds drop down in the winter as do those of the common garden forms. Our heading, it will be noted, mentions two botanical names, the second, *L. pseudo-mas*, representing an evergreen sub-section of much tougher make—a distinct advantage as regards winter decoration. The Male Fern, however, has by no means been contented with giving us

these three finer forms, since there are really over 100 distinct varieties catalogued as tasselled, congested, dwarfed, and otherwise diversified in different ways.

Those above described may be regarded as the giants, but we have pretty little dwarf forms but a few inches high suitable for rock-work or pots, such as *L. F.-m. crispolissima*, *crispa gracilis*, *crispa ramulosissima*, and *crispa-cristata-angustata*, the last a little gem hardly as large as its name. Then, recurring to the larger types, we have numerous forms of *cristata* culminating in *ramosissima*, which branches and branches again, and terminates in tassels; *revolvens*, with fronds rolled up into tubes; *linearis*, all divisions very slender; and so on, so that an entire rockery might be filled with forms of the Male Fern of which no two would be alike, certainly an immense improvement on the monotonous repetition of the one form, for which the Fern connoisseur would find no room at all.

CHAS. T. DRURY, V.M.H., F.L.S.

THE FRUIT GARDEN.

PREPARING FOR PLANTING.

THE importance of providing the best possible preparatory cultivation for fruit tree planting cannot be exaggerated. Experience under varied circumstances on widely differing soils abundantly proves all that scientists claim for aeration in its chemical and bacterial results. In all soils of moderately heavy character the plant food locked up in the solid untilld state is enormous, though almost unrecognised, except by the analytical chemist. Every operation which breaks up the mass, and admits air or rain more freely to all portions, assists in liberating some of this hidden wealth for the benefit of the cultivator. Especially needful, therefore, are all such desirable preparatory

processes when permanent crops are to occupy the land, and in the case of fruit trees a long period of usefulness is hoped for to repay the expenses incurred.

It is unfortunate that these essential preliminaries are not so fully grasped as they should be in the interests of fruit growing generally. There is too much of the haphazard work and hurried planting without adequate previous cultivation; and next to errors in the selection of sites for fruit plantations nothing leads to more frequent failures, with the attendant disgust of those who have sought to encourage an important industry.

Land foul with perennial weeds, especially those having creeping roots, must have a thorough course of cleaning before it is devoted to fruit trees; and this point cannot be too strongly emphasised. At the present time the best method is to turn it up roughly for a winter's exposure, and then plant with Potatoes in the spring, postponing the fruit planting until next autumn. If, however, it has had a good summer's cleansing, and is free from twitch, it may be set out for the intended crops at once. One season's constant stirring and exposure in the right weather will go far to destroy the most noxious perennial weeds, though it will not extirpate the harvest that is in the soil in the shape of seeds. With the resulting crops from them after, cultivation must deal.

But the majority of those who are arranging for planting fruit trees on a large scale will have before them a course of cultivation adapted for fairly clean and substantial soils. In all such cases it becomes a question whether steam-power, horse-labour, or hand-labour shall be relied upon for the work, and to decide this three points require consideration—the time when planting is to begin, the thoroughness needed, and the expense the planter is prepared to face. We know an instance where a large area of old meadow land was taken in hand early in the autumn,

steam-ploughed to a good depth, levelled with heavy harrows a few weeks later, and planted with Plums and bush fruits, all within a period of two months. It was the cheapest and most expeditious work we have ever seen, and at the end of a trying summer all the plants looked well. But there were two important points in its favour—one was the soil was of an excellent workable character, and the other that the weather was exceptionally advantageous for each operation. Such helpful conditions cannot always be relied upon, and precautionary measures have to be taken accordingly.

On the score of efficiency and for immediate planting, trenching land by hand to the depth of two spits is decidedly the most satisfactory; but against it has to be reckoned the heavy expense, which, to small capitalists, is almost prohibitive when a large area is being planted. There is also the added difficulty, in some districts, of securing sufficient labour to ensure the work being done under the right conditions, and in time for putting out the trees. If performed by piece-work trenching may cost from £4 to £8 per acre, according to the land and the district; but it is obvious that for a plantation of, say, fifty acres the outlay is so large that few who are concerned in making a commercial success of a farm or garden can face it. Unless, too, a considerable number of men can be set on at one time the work will drag over a long period.

Forking in some soils is a good substitute for trenching, and it can be carried out in an efficient manner for about £2 to £2 10s. per acre. On some of the heavy soils of the Midland counties strong forks with two long tines are in common use for breaking up land in this way, and the soil is moved or turned to the depth of 9 inches or 10 inches. It is necessarily a rather rough process, and land so treated requires a period of exposure to the weather before it is in the right state for planting. Still, it is a cheap method, and

where the subsoil is right as regards natural drainage, the depth secured is ample for most fruit crops. It is also as convenient as trenching for the incorporation of manures where that course is advisable or possible.

Digging with spades, excellent as it is from a cultivator's point of view, is scarcely suitable in the preparation of large fruit plantations. It is too slow, too expensive, and does not deepen the soil sufficiently except in market or private garden land which is rich in humus and has been deeply stirred throughout a long period. For small areas and special crops it can always be employed with advantage.

In ordinary arable land which has been ploughed in the usual shallow manner for many years an inexpensive method of preparation is by steam cultivation, which rarely costs more than 15s. to £1 per acre, and it can be done in two directions for this amount. Powerful cultivators are now available by which the soil can be broken up to the depth of 15 inches or 18 inches, but it is left in a very rough state where it is heavy



PLUM THE CZAR. (Reduced.)

and has not been worked for a considerable time. If this is done in autumn it should remain for a winter's exposure, and can then be readily broken down in early spring. If the work be done in good time, however, it may be possible to plant in late autumn, and where circumstances permit autumn planting is always preferable, as although spring work can be performed successfully, there are many risks and uncertainties. Deep steam cultivation must always be followed by some other course of surface preparation, either by the same power or by horse-labour. It may take the form of shallow moving with cultivators, or harrowing might suffice when the soil is well reduced by weathering.

When land has been previously deeply cultivated ploughing and harrowing by horses will ensure a suitable condition for planting, but in heavy land that has not been so treated it is difficult to perform the work efficiently by horse-power alone. Upon the lighter soils ploughing and cultivating by horse-labour can be done satisfactorily and cheaply, but it is seldom they are selected for extensive planting with fruit.

In all cases endeavour to have the preparatory work done when the soil is not too wet. It is better to defer the operation than to commence or continue it under conditions which can only lead to ultimate disaster that is irremediable. Modes of planting, manures, all profitable varieties of fruit trees and bushes will be considered in articles that are to follow.

R. LEWIS CASTLE.

(To be continued.)

PLUM THE CZAR.

AMONG gardeners this fine Plum is well known as one of the surest and heaviest cropping varieties we have. It deserves to be better known among cottagers and amateurs as a companion to the popular Victoria. The accompanying illustration of a fruiting branch gives a good idea of its fertility. It is considered a cooking sort, but when quite ripe is worthy of inclusion in the dessert. The fruit is only of medium size, jet black in colour, and always carries a dense bloom. The tree is not of large growth, and is upright in form. It is therefore well suited to small gardens.

OWEN THOMAS.

PLUMS AT MADRESFIELD COURT.

THE lessons taught by losses are often said to be more effective in teaching us practical wisdom than those gained through success. This, no doubt, is true, and it may be applied to many callings in life; but I think to no one more so than to the gardener. No one is more ready to learn than he, whether the result be success or failure. In a season so remarkable for the failure of the hardy fruit crops in this country as the past has been, some few varieties of most kinds of fruit have borne fair crops, and for future guidance it is just as well to take special note of those varieties of Apples, Pears, and Plums which by their hardiness, lateness in blooming, or some other characteristic, have given fair returns even in this disastrous year. As regards the Plum, we had the pleasure, some little time ago, of seeing the wonderfully heavy crops some of the varieties were bearing at Madresfield Court Gardens. Sample fruiting branches of the following sorts were recently exhibited by Mr. Crump at the Royal Horticultural Society's Hall, Westminster: Bryanstone Gage, The Sultan, Victoria, Pershore, Pond's Seedling, Magnum Bonum, Cox's Emperor, and Belgian Purple.

These were all grown on bush or pyramid trees in the open quarters. The immunity from disaster in the case of the sorts noted may not be entirely due to the constitution of the variety, but to other agencies, such as shelter, high elevations, &c.

All the same, it is a fact that some varieties of hardy fruit for years resist the effect of frost while in bloom better than others, with the result that they prove invaluable in a season like this. It would be most interesting to have the experience of your fruit-growing readers as to the sorts of Apples, Pears, and Plums which have borne fair crops with them this year. For instance, at Elvaston Castle Gardens the other day I saw a large bush tree of Gascoyne's Scarlet Seedling bearing an enormous crop, and was told it had not missed bearing a good crop for nine years until last year. It is singular that it bore no fruit last year, seeing that 1904 was a splendid year for Apples throughout the country. O. T.

PEAR BEURRE HARDY.

As the planting season is now at hand I would draw the attention of hardy fruit growers to this fine autumn Pear. We have many splendid dessert varieties in season at this time, but not many better flavoured ones than the Pear in question. Whether grown as an orchard standard, as a pyramid, or trained against a wall, it rarely fails to carry a crop. The tree is a strong, upright grower, and vigorous young trees on a good Pear soil sometimes require lifting or root-pruning to encourage the formation of fruit-buds. Our best fruits of this variety are generally obtained from pyramid trees growing on the Quince stock. The soil is a heavy loam overlying brick-earth, which suits this Pear admirably. Owners of moderate-sized gardens, where not much space is available for growing hardy fruit, should not fail to plant a tree or two of this delicious Pear, which, though introduced many years ago, still holds its own for productiveness and flavour. The fruits are above medium size, of a russet brown colour, darker on the exposed side, and very highly perfumed.

CHARLES PAGE.

Dropmore Gardens, Bucks.

THE CLASSIFICATION OF THE NARCISSUS.

(Continued from page 286.)

IN Group II. (Intermediate Narcissi) Triandrus and Juncifolius, being species, are, of course, essential sub-divisions. So, too, are such well-marked sections as Incomparabilis (Ajax × Poeticus), double Incompara-



PEAR BEURRE HARDY.

bilis, Leedsii (White Ajax × Poeticus), and Odorus (Ajax × Jonquilla). So, too, Bernardi (hybrids of abscissus and variiformis × Poeticus), and Tridymus (Ajax × Tazetta, the latter being the seed bearer) have each of them a very distinct character, and would probably have to remain. If Macleai and Nelsoni are, as seems probable, bicolor Ajax × Poeticus, it is a question whether they might not with advantage be ranged under the head Incomparabilis; but if they are Ajax × Tazetta, then they might together form a section Macleai and Nelsoni. Montanus (poculiformis) can hardly be distinguished from what in garden hybrids is called the Leedsii section, and might be ranged under that name. Humei, of which Hume's concolor is the only variety worth growing, and Backhousei (probably bicolor Ajax × Poeticus, or bicolor Ajax × Incomparabilis), whose large crowns give evidence of a larger amount of Ajax than of poeticus blood, might perhaps be merged in a new section of large-crowned incomparables to be presently suggested. Barrii and Burbidgei forms, as has already been shown, are very closely akin, and sometimes hard to distinguish, and might, perhaps, for the sake of simplicity, be placed together in one section. Such a section might be called by the double title Barrii and Burbidgei in order

to retain both the honoured names hitherto associated with these forms.

The fourteen sections of the present Medio-coronati class might thus, perhaps, be reduced to nine or ten. But new sections would be necessary in the new Group II. to include:

(a) Hybrids of Ajax × Triandrus, such as the wild hybrid Queen of Spain and garden hybrids Snowdrop, Cecil Rhodes, &c. Such a section was proposed both in my "Book of the Daffodil" and in Messrs. Burbidge and Barr's scheme, under the title Johnstoni.

(b) Forms resulting from Triandrus × Leedsii, such as Mrs. Berkeley, Robert Berkeley, &c. This section might be called Willmottii after Miss Ellen Willmott, to whom the public is so much indebted for the introduction of these beautiful varieties.

(c) Those distinct forms (hitherto classed with Burbidgei) which have large, flat, widely-expanded crowns like discs. This section is suggested by Messrs. Burbidge and Barr under the title Englehearti.

(d) The forms of Incomparabilis in which the preponderance of true Daffodil blood produces very large crowns. These might be called Giant Incomparabilis or Large-crowned Incomparabilis, and possibly the Humei and Backhousei flowers might be merged in this section.

(e) Those forms of Leedsii character, resulting chiefly from a second cross (white Ajax × Leedsii), which have very large crowns, e.g., Janet Image. These might be called Giant Leedsii, or Large-crowned Leedsii.

(f) Bunch-flowered hybrids between Incomparabilis and Tazetta, such as Schizanthus Orientalis.

(g) Intermediate forms between true Daffodils and true Narcissi, whose characters are not sufficiently marked to bring them certainly under any of the other sections.

S. EUGENE BOURNE.

(To be continued.)

COLOURED PLATE.

PLATE 1236.

THE SWEET PEAS OF 1905.

ONE striking fact regarding Sweet Pea novelties is the wonderful development of what is known as the Spencer type. There is a subtle charm in this form which seems to draw the attention away from the other sorts with the exception of a few distinct colours among the



CHIONODOXA (GLORY OF THE SNOW) AND IRIS ROSENBACHIANA.

ordinary and hooded types. Among the latter are the following:

Evelyn Byatt, the variety shown in the coloured plate, is another very brilliant sort. I saw it at the National Sweet Pea show, and it seemed all aglow—just like balls of fire. It may be described as a gorgeous "Gorgeous." It well deserved the certificate of merit, and should be in every collection. It is not a large-flowered variety, but size is more than compensated by its brilliance. It has a rich orange-salmon standard, with falls or wings rather deeper in colour, giving a rich fiery orange or sunset colour to the whole flower. This variety is perfectly fixed in character. Introduced by Messrs. Watkins and Simpson, 12, Tavistock Street, Covent Garden, London.

Henry Eckford.—There can be no doubt that this variety is a most distinct novelty, not only in colour—which is a lovely orange-salmon, with a distinct thin line of carmine down the centre of the standard—but the standard is of a beautiful round form. Mr. Eckford is sending it out next year, and readers will do well to place their orders early.

Helen Pierce.—A very peculiar flush of purplish tone is on the standard, and when the flowers are bunched is quite unique in its

way. It is a variety to include in a collection of eighteen bunches, being so distinct from other flaked varieties.

Queen Alexandra is too near Scarlet Gem to need further description. The raiser says it is not inclined to burn and go purple so quickly with age as the latter.

These were the most conspicuous novelties of the old type, and now as to the Spencer lot. There are now at least five distinct tones of colour in this section—rose, pink, orange, mauve, white, and one verging on scarlet.

Mr. Charles Foster is a beautiful grey-mauve, something after Lady Grisell Hamilton and Mrs. W. Wright. The main colour is somewhat lighter than Lady Grisell, and the edges—a broad band—are much darker and the shade of Mrs. W. Wright. It is sure to be a great favourite when fixed. Like the others of the Spencer type, several growers got it from the parent stock and sent it out under different names for the opinion of the National Sweet Pea Society.

Helen Lewis.—The raiser was honoured by gaining the medal for the best variety of the year with it. Last year it was sent out as Orange Countess by Mr. Sydenham. When bunched and in the earlier months of the flowering season the orange tone is the dominant colour, and it is very charming. Later

in the season the standards get quickly damaged round the edges, and it loses its charm. I grew two sets of it, and that sent out by Mr. R. Bolton was far and away the better.

John Ingman is a glorious rose-coloured flower of enormous size. Its form is perfect, and it will be very largely grown by exhibitors next year. It gained the prize at Ulverston for the best bunch in the show, and doing that at the very height of the season speaks volumes in its favour.

Nora Unwin.—This is a white variety, really a sport from Gladys Unwin. The form is not so distinct as one would like—just verging on the crimped edge. The substance is not so firm as in Dorothy Eckford, the queen of white sorts. As to the pinks, apart from Countess Spencer we have

May Malcolm, shown at Ulverston for the first time. It got a first-class certificate there, and was most favourably commented on at Shrewsbury. Undoubtedly this is the most beautiful pink Sweet Pea. It is a very rich pink, and one colour throughout. I rather fear Mr. Bolton will not send it out till 1907.

Mrs. Harcastle Sykes is another. The body of the standard and wings is of a very



SWEET PEA EVELYN BYATT.

soft light pink with a clear pink edge, and of the crimpiest and daintiest form—a much improved Eric Hinton.

The *Hon. C. R. Spencer* seems to be one of the varieties where you find great diversity of opinion as to colour. I saw it at the National Sweet Pea show in July, and was particularly struck with it. I noted it as being scarlet, and it was more fringed than any variety in commerce. One famous grower says it is a much improved Helen Lewis. I go further and say it is certainly the most brilliant coloured of the whole Spencer race.

These are distinct sorts shown this season. A great many more of undoubted merit were shown, but it is impossible in a short article to do justice to them.

Duns, N.B.

A. MALCOLM.

NOTES ON HARDY PLANTS.

IRIS ROSENBACHIANA AND CHIONODOXA.

IN the accompanying illustration is shown this charming bulbous Iris associated with the Glory of the Snow. They make excellent companions, each with its distinctive features blending together to make an effective picture. Belonging to the Juno set of Irises, *I. rosenbachiana* is an early-flowering species coming into bloom early in March. It will flourish under the same conditions as those which *I. caucasica* needs, *i.e.*, a warm, sheltered border, where it will not be exposed to biting east winds, which are apt to damage the broad foliage. A thorough ripening of the bulb is essential during the summer, and the soil should be light and well drained, anything in the shape of stagnant moisture being fatal to it. Even under the most favourable conditions, however, many bulbs die off, so that it seems as if its exact requirements have not yet been ascertained. Under the above conditions a fair amount of success may be looked for with this plant with its flowers of varied colouring. It is found on the mountains of Eastern Bokhara, growing at an elevation of from 6,000 feet to 7,000 feet. It has now been in cultivation for many years, but is not yet common, being chiefly confined to the gardens of those who cultivate rare and beautiful plants. The flowers are very variable in colour, some forms being much finer than others. The principal colours are purple, yellow, and white in most forms, while in others the purple passes into a rich crimson, with a ridge of rich golden yellow rising up along the centre of the blade of the claw. As the foliage of this Iris is very short at the time of flowering the advantage of planting *Chionodoxa* amongst it will be apparent. The great attraction of the group of Irises to which this plant belongs is in the earliness with which they come into flower. On a warm sunny border they may be seen often in January pushing their way through the soil ready to open on the first genial day.

W. IRVING.

THE PYRENEAN SNAPDRAGON (*ANTIRRHINUM SEMPERVIRENS*).

AMONG the few plants still in flower in the rock garden at the end of October is this Pyrenean Snapdragon and the closely allied *Antirrhinum*

glutinosum. They make charming plants for old walls or rocky ledges, planted so that their procumbent stems may hang down over the face of the wall or stones in the rockery. They enjoy any amount of sun and flower continuously through the late summer and autumn months till cut down by severe frost. In the Pyrenees and northern parts of Spain three closely allied species of *Antirrhinum* are found, which might very well be regarded as forms of one species. They are *A. molle*, *A. glutinosum*, and *A. sempervirens*, all of which resemble each other in general habit and differ only in minor details. *A. glutinosum* is confined to the Sierra Nevada, where it is found on old walls and calcareous rocks reaching an altitude on the mountains of 2,500 feet and more. The stem and leaves are completely covered with clammy hairs, making it sticky to the touch. The freely-produced flowers are white, with a yellow palate, while the upper lip is striped with purple. It is figured in the *Botanical Magazine*, t. 7285, from a plant which flowered with Messrs. Backhouse of York in 1892. *A. molle* is found in Catalonia, and differs from the last in having

rounder leaves covered thickly with woolly hairs, but not sticky like those of that species. It was introduced into cultivation in 1752, but has since been lost, for, like the others, it is somewhat tender, and requires a well-sheltered place or to be wintered in a frame. *A. sempervirens* is found on both sides of the Eastern Pyrenees, and differs from *A. glutinosum* in having broader leaves and being only slightly downy. It is evergreen, and has a somewhat shrubby base. The first of the three in cultivation in this country, it was introduced in the year 1715. Like the others it is found growing on calcareous rocks, where it can secure perfect drainage. The flowers of all three are much alike in colour and size, and vary according to the luxuriance of the individual plant. It is one of the easiest of plants to propagate; cuttings root readily in summer in a cold frame, making nice plants for the following spring, and seeds germinate freely. Owing to their tenderness these plants are only found in a few gardens, but they are well worth the little trouble entailed by wintering in a cold frame.

W. J.



DENDROBIUM PHALÉNOPSIS MISS
LOUISA DEANE.

(Two-thirds natural size.)

A BEAUTIFUL DENDROBIUM.

THE variety of that valuable autumn-flowering Dendrobium, *D. Phalenopsis*, shown in the accompanying illustration, is named Miss Louisa Deane. It is a beautiful flower, with white sepals and petals, the throat and lobes of the lip being tinged with pink. It was exhibited by Mr. G. F. Moore, Chardwar, Bourton-on-the-Water, Gloucester, on the 24th ult., when the Orchid committee of the Royal Horticultural Society gave it an award of merit.

GARDENING FOR BEGINNERS.

SIMPLE HINTS.

BULB CULTURE IN MOSS FIBRE.

We are indebted to Mr. Robert Sydenham, Tenby Street, Birmingham, for the accompanying illustration of Daffodil Henry Irving, grown in cream jars containing moss fibre, and entirely without drainage. This picture serves to show what fine blooms can be grown in this way, and with little trouble, as Mr. Sydenham, who has sent us the following notes, points out. Of course, some of the Polyanthus varieties would make a better show than the bulbs of the variety illustrated. I usually fill about 200 jars or vases of various sizes; some contain a single bulb, others contain three to twelve bulbs, and I rarely have a failure. Many of my friends and correspondents who have tried this system during the past few years speak in the most enthusiastic way of their success, and now grow nearly all their bulbs in this fibre, in vases, rather than in the usual way, in pots. The advantage of this system is that the vases can be placed anywhere about the house, in the drawing or dining-room, without fear of water or soil coming through the base of the pots. The moss fibre is perfectly odourless and clean to handle; it is specially prepared for the purpose. When growing bulbs in vases without drainage, it is very necessary first to rub the dry fibre until it is free from lumps, then add the shell, and water a little at a time, using water at the rate of four quarts to each half-bushel, until the necessary quantity has been mixed. If the mixing is properly done the fibre will increase in bulk by nearly one-third. Before potting put a few pieces of charcoal in the bottom of the vase to absorb impurities and keep the mixture sweet, then put in from 1 inch to 2 inches of the compost at the bottom according to the size of the vase; place the Narcissi, Roman Hyacinths, Tulips, Freesias, or whatever is being potted, gently on the fibre, after which fill up the vases to within 1 inch of the rim. When potting, although desirable to see that the compost is placed well round the bulbs, it is not necessary or desirable to press it at all tightly, otherwise the roots do not work freely in the fibre, but the bulbs have a tendency to push themselves upwards, as is often the case with those potted too firmly in soil. When once potted they will require little or no attention for the first two or three weeks, but after that great care should be taken to keep the compost fairly moist, but on no account must it be sodden or too wet. On the other hand, if once allowed to get dry, if only for half an hour, the pores of the roots close up and the bulbs in many cases go blind and are ruined. This more frequently happens with Tulips than Narcissi, the Tulip roots being finer and therefore requiring extra attention. The vases should be examined at least once a week, and a little water given when necessary; this necessity will quickly be indicated, for as soon as all surplus moisture is absorbed the fibre becomes dry at the top; on the other hand, if it is thought there is too much moisture in the vase, turn it on one side and allow the surplus water to drain out. When the bulbs are potted the vases or jars should be kept in any airy cellar or room—nothing is worse than a confined cupboard, or a small, airless, dark room. When the bulbs have grown about 1 inch out of the fibre they should be brought into more light, and given as much air as possible, for if air is not given the foliage becomes unnaturally long and weak, and the flower is either killed or is very poor. Where a cool house or frame cannot be used, put them on

the window sill or garden path during the day, taking care, of course, to keep them from frost.

The Best Bulbs to Grow in Fibre.—First, I should recommend Roman Hyacinths. If a few are potted each fortnight from September a succession of these charming flowers may be had until the end of January. I should next recommend the Paper-white Narcissus. The French Monarque, Polyanthus Narcissus, is a charming variety, which, by the by, is quite different from the Dutch, coming into bloom about the middle of January, or later than the Paper-white but earlier than the Dutch Grand Monarch. The flowers are smaller but more numerous, and the foliage longer and more plentiful. The various varieties of Dutch Polyanthus Narcissi do well in fibre, as they are dwarfier and throw infinitely better blooms and more of them than the Joss Lily or Sacred Lily of China. The

Trumpet Daffodils I advise for growing in vases in fibre are, first of all, obvallaris. It has a very bright yellow flower, which is thrown well

flowers from each bulb, and it also has very pretty foliage. Campenelle rugulosus, with its Rush-like foliage and pretty star-like flowers, generally two or three on a stem, always does well in these vases. Sir Watkin, the giant of the incomparabilis section, makes a grand display. Barrii conspicuus, with its lovely rich orange cup, generally throws two or three flowers from a first-size bulb, and for culture in vases is a grand variety and should be grown by all.

Hyacinths I find do wonderfully well in moss fibre. There is more nourishment in it than in Cocoanut fibre refuse, and it may be used in glass bottles instead of plain water, but a lump or two of charcoal should always be put at the bottom to keep the composition sweet. Tulips also thrive admirably in fibre in china vases, but special care is required to see that they do not get dry at the roots. Muscari or Grape Hyacinths I have always found do wonderfully well in fibre; so do Spanish Iris. The only thing to bear in mind in growing these Irises in the vases is that the foliage comes a long time before the flowers; a little thin blade-like foliage will often appear in February or even January, but it is very rarely that the flowers appear before April or May. Crocuses, Scillas, and various other small bulbs do fairly well, but I have not found them quite so successful as the Narcissi, Tulips, and Hyacinths. I have had very good results from Anemones, but these seem to want potting a little firmer than ordinary bulbs. I have also had some of the finest Liliums I have ever grown treated in this way. I have tried Begonias grown in moss fibre, and have had very fair success; in fact, the results may be achieved with many things apart from bulbs, such as Ferns.

Chinese or Monthly Roses.—These old-fashioned Roses do not appear to have been in much demand of late, but now that we have such good additions as Duke of York, Irene Watts, Mme. Eugène Resal, and Queen Mab, they may once more come to the fore. Probably we have no more certain autumnal bloomers than these. They commence to flower as early as any, are continuous, and seldom fail to carry a few presentable blossoms as late as the middle or end of November. The old Common Blush China has been introduced for a little more than a century, and is still a favourite in many cottage gardens. The Chinas have a close affinity with our Teas and Noisettes, often exceeding these in freedom of flowering. As a hedge of 3 feet to 4 feet the stronger growers are charming, and may be pruned very roughly without fear of losing blossoms. We would select the Old Blush, Mrs. Bosanquet, and Abbé Mioland as hedge plants. But it is against a low wall that is well sheltered that we find these Monthly Roses most at home. Here they grow and flower in delightful profusion. When the dwarf growers, such as Queen Mab, Cramoisie Supérieure, Eugène Beauharnais, Little Pet, and Red Pet are massed thickly there are few better or more permanent subjects for bedding. They are far from expensive, being the very easiest of all Roses to increase, and doing much better when grown upon their own roots than upon foster roots. In a warm nook or corner, especially if the winter be fairly mild, one can cut Roses all the year round, and late flowers stand well. Nor does this continuous blooming harm the plants for the ensuing spring and summer. They are the most thoroughly perpetual Roses we have. No matter what the season they are charming, and deserve far more



DAFFODIL HENRY IRVING.

(Grown in moss fibre without drainage.)

above the abundant foliage, each bulb generally having from twelve to sixteen leaves, or blades of foliage. Next to obvallaris comes Henry Irving, which is somewhat similar to a Tenby Daffodil, but has a larger and bolder flower. Golden Spur and Empress also do wonderfully well treated in this way. Victoria, a rather new bicolor, does wonderfully well in the larger vases, and each bulb generally throws two, and often three, flowers from a first-sized bulb. Emperor always makes a handsome display. Of the star-shaped Narcissi I recommend Mrs. Langtry before all; it is a most certain bloomer, very floriferous, generally throwing two, and very often three

attention than they have received of late. Being few-petalled they open freely, and whether the season be wet or dry, hot or cold, the Chinas will not fail us.

A Beautiful Blue Annual (Phacelia campanularia).—This is one of the most beautiful of all hardy annuals with deep blue flowers. It is best in a warm, dry soil and sunny position, where it will flower for many weeks in summer, forming a



PHACELIA CAMPANULARIA.

neat rounded, dark-leaved plant, against which the blue colouring is intense. Blue-flowered annual plants are none too plentiful, and therefore it is one of the plants that should be grown in all gardens.—S.

Sowing Briar and Rose Seed.—All heaps of Briars and Roses should be gathered as soon as possible now, or the birds will pick out the best and plumpest seeds. Store the heaps in sand for a time, taking care they are safe from mice. Break up the heaps and thoroughly mix sand and seed early in February. Then sow very thinly in shallow drills upon a warm border and protect from birds and mice. The advantage of drills over broadcast sowing is in being able to use the hoe between. Rose heaps may be sown in pans or boxes or in a cold frame, and where one has a few choice heaps only this may be the safest plan. Plant out the spring following, giving the seedlings a good loam and placing them a foot apart each way. Do not be too hasty in discarding any that may not flower or which seem inferior, as the first blooms are not a fair test.

Bulbs for Cut Flowers.—If not already done, no time should be lost in getting bulbs planted. During the past few years the demand for fresh cut flowers has increased enormously, and in spite of the very large importations and the low rates at which they are sold, there is still room for growers in the neighbourhood of towns. No position I have yet tried for the beds suits them so well as the spaces between rows of bush and pyramid fruit trees, for when these are set out at from 12 feet to 18 feet apart there is ample room for a good bed of bulbs. The trees form an excellent wind-break, and the bulbs grow up, flower, and go to rest before there is much need to tread on the beds, while by the time fruit-picking comes on they have mostly gone quite to rest. I find Daffodils of all kinds the best of all bulbs for cutting, and they do not require lifting every year. Hyacinths and Tulips, Irises, Lilies of

many kinds all do well on the permanent bed plan, and Gladiolus The Bride is very beautiful in the South of England, but as it pushes up its growth before the severe weather comes on we have to cover the beds with litter during frost. I need hardly say that Lily of the Valley is indispensable where cut flowers are grown, and the beds should occupy both sunny and fully shaded spots, so as to prolong the season as much as possible, for a very late supply is in many cases fully as profitable as a very early one.—J. GROOM, Gosport.

Lettuces Failing.—A correspondent asks for a remedy against mould attacking Lettuce plants. We have frequently met with the same thing, the evil being more common with the Bath or Brown Cos than other sorts. Moreover, it is more often met with in gardens where Lettuce and other small green vegetables and salads have been raised for many years, the ground having become, as it were, Lettuce-sick. This fact points to the necessity of occasionally changing the ground for such things. This is sometimes difficult in gardens of small size, and in such cases the best way to prevent such attacks is to incorporate with the staple soil of the border a good dressing of gas-lime and wood ashes, and if a little fresh loamy compost can be procured as well, so much the better, mixing them all previous to digging the ground, this being best done in winter. Sometimes the fault lies in sowing old or poor seed, improperly ripened, the evil being further encouraged by allowing the young plants to remain in the seed beds too long in a crowded state.

GARDENING OF THE WEEK.

FLOWER GARDEN.

TUBEROUS BEGONIAS.—If these are dried, harvested, boxed or barrelled, with dry leaf-mould or other light material sprinkled among them and placed in a cool, airy house, they will winter satisfactorily, as will also Salvia patens, Dahlias, and Cannas if laid in a frost-proof dry building after being partly dried and the decayed tops cut off, working roughish light material among the roots, and with no trouble further than to examine occasionally in case of drip or frost affecting them. There are other plants that should be attended to before wet and wintry weather, plants that really suffer more from excessive and continuous moisture than from severe frost; for instance,

LOBELIA FULGENS AND VARIETIES.—Lift the clumps, box up in light soil, place in a cool house, and water sparingly until the spring, when they can be increased both by division and cuttings. These are so bright and showy, both in leaf and flower, and so distinct that it behoves one to look well after them. It is also time to lift

ECHEVERIA SECUNDA GLAUCA and box or stack them, for even where they are hardy they dislike moisture, and numbers are lost through damping in the winter when left undisturbed. If grown in large quantities or indoor space is limited, stacking—by facing south walls or banks made up of soil, building them in almost perpendicularly—is best, protecting from rain and snow by overhanging temporary roofs. Keeping the crowns dry is essential to their wintering safely.

GLADIOLI and similar bulbs must also be lifted, not so much because of their tenderness, but because they are more satisfactory in a general way lifted annually, or at most biennially. Left undisturbed longer the corms usually deteriorate. Harvest carefully, and store in dry cupboards. By this advanced date all tender bedding plants intended for providing stock in the spring should be safely and suitably housed, and so should all cuttings of soft-wooded plants that have been struck out of doors or in cold frames. Press forward with planting spring-flowering bulbs and plants, for it is full time such should be completed. Clear away all summer occupants killed by frost and the litter inevitably associated with the change of seasons. It is to be hoped the best use has been made of the splendid weather of the past month or so in

PLANTING ROSES of many kinds, and in many situations it may be advantageously continued until the end of the present one, providing the soil keeps in good working order, but if wet and clammy it will be far better to defer further planting under such unfavourable conditions until the spring. Situated in a district with a heavy rainfall, as we are, we seldom get ideal Rose-planting weather after November comes in. In the meantime we proceed with planting deciduous trees and shrubs, as well as some evergreens, plants that succeed in lighter soil—hence more workable during winter—than the heavier soil most Roses delight in.

JOHN ROBERTS.

The Gardens, Tan-y-bwlch, North Wales.

INDOOR GARDEN.

CACTUS AND OTHER SUCCULENTS.—During winter these plants require very little water. Whether grown in large gardens, by the amateur as a hobby, or a few in the window of a dwelling-house, they are always objects of interest even when not in flower. Speaking generally, no plants are easier to manage. The most important points are a good open soil and ample drainage. In summer many of them can be used as bedding plants, not removed from the pots, as they would be liable to get damaged when lifted in autumn, but plunged just below the rim. Outside treatment seems to give them renewed vigour.

BULBS.—Look over these, when they have been in the ashes for five or six weeks, about every ten days, as if left in too long the growing tips are soon spoilt. Place in cold frames, and cover with mats for a few days till the growths become green. Protect from frost at night.

FREESIAs.—A temperature of 50° Fahr. will be ample for the earliest batch, as they resent undue forcing. Twigs from old Birch brooms placed neatly amongst them, and tied here and there with raffia, are preferable to stakes I always think. Give them a little weak manure water if well rooted.

EUPHORBIA.—E. pulcherrima should now be given stove treatment to develop the bracts. Avoid a check either from excess of moisture at the root or cold draughts. Either of these will cause the leaves to drop off. This gives the plants a leggy appearance, as well as hindering the proper development of the bracts. Give weak manure water once or twice a week. E. fulgens (jacquiniiflora) does not root so freely as the above, so that no stimulant beyond a little soot water is necessary.

CAMPANULAS.—C. pyramidalis will be better if given the protection of a cold frame during winter. In favoured localities they are often left outside. If this is done see that the drainage is good, as excess of moisture at the root often does more harm than frost. In and around London they should be placed in frames, as the excessive deposits left on the foliage after a thick fog are very injurious. Pot up a few plants of the best varieties of C. persicifolia, such as maxima and Moerheimi. Grown several plants in a pot they are very effective in early summer. If the flowers are removed as they fade and the plants fed with manure water they continue flowering for a long period.

GENERAL REMARKS.—Secure Mignonette to neat stakes. Thin later batches, leaving three to five in a pot, shift on into larger pots as necessary. Maintain a buoyant atmosphere in the houses where Cyclamen, Primulas, and zonal Pelargoniums are growing. A raw damp atmosphere is fatal to the flowers. Cease feeding Chrysanthemums when the flowers are half open. Pot Humea elegans from 3½-inch to 5-inch pots, or larger still if the seed was sown very early. Grow in an intermediate house and water carefully.

THE AMATEUR'S GREENHOUSE.—This house usually contains a great variety of plants, more especially at this season. To grow a mixed collection of plants in a house is always more difficult than where limited to a few sorts, requiring more or less similar treatment. The temperature is one of the most important points. A minimum of 45° Fahr. is about the most suitable for the majority of plants one generally finds in such houses. Ventilate freely during mild weather.

A. OSBORN.

Royal Botanic Gardens, Kew.

ORCHIDS.

DENDROBIUM PHALENOPSIS SCHRÖDERIANUM now forms the principal attraction in the warm house. The long, arching flower-spikes are very beautiful, and are exceedingly useful for decorative purposes generally. Where a number of these plants are grown, some very distinct varieties will be found among them, the great range of colour in the different plants being extremely interesting. The dark, richly-coloured varieties appear to be the more common, although there are many lighter forms which are always much admired. The white variety, D. p. hololeucum, two plants of which are now in flower at Burford, is still very rare. Plants that have been suspended to the roof whilst making their growth, and are now in bloom, should be nicely arranged upon the stage at the coolest end of the house, and if the atmosphere about them be kept drier than usual, the flowers will remain fresh for a long time. The spikes should not be allowed to remain on the plants long enough to cause undue shrivelling of the pseudo-bulbs, or the plants will become so exhausted that they will be unable to reproduce strong flowering growths for several years to come. A strong plant and special variety of this Dendrobium here about three years ago produced several large spikes of bloom which were not removed until the flowers had faded. From this strain the plant is only now recovering. As soon as the spikes are cut the plants should be removed to a drier atmosphere, and where the temperature during winter ranges between 55° and 60°. Keep the plants rather dry at the roots, water being afforded occasionally just to keep the plants fresh and the bulbs from shrivelling. Such species as D. superbiens, D. Goldei, D. bigibbum, D. b. album, and D. statterianum will also be flowering at this period, and will require similar treatment during their resting season. Plants of D. nobile that completed their growth early, and have been thoroughly ripened, will in some cases be showing their bloom buds. As the flower-buds advance a light spraying overhead will greatly assist them, but water to the plants must be afforded only at long intervals of time, the compost being kept rather on the dry side. If the soil is made too wet some of the young breaks now forming at the base of the bulbs will commence to grow leaving the flower-buds in the lurch.

SCHOMBURGKIAS as S. sanderiana, S. kimballiana, S. Tibicinis, and S. chionodora that are showing their flower-

spikes should be placed well up to the roof glass in the East Indian house, where they will get the least amount of shade, with correspondingly less moisture, and if near to the top ventilator, which is opened occasionally, all the better for them. The surface of the compost should be lightly watered two or three times each week, but it must not be made too wet or the spikes will be likely to damp off. Others of this sub-cylindrical section, as *S. thomsoniana*, *S. Humboldtii*, and *S. galleotiana* that are at rest, should be well exposed to the light and be kept rather dry at the roots. These Schomburgkias are distinct growing plants, and produce flowers which last an unusual length of time in a fresh condition. *S. crispata*, also producing its spikes, should receive the same cultural treatment as the Cattleyas. In the

MEXICAN HOUSE such plants as *Laelia anceps* and its numerous distinct varieties, also *L. autumnalis*, *L. albida*, *L. marriottiana*, and others have their flower-spikes well advanced, the plants will require but very little water at the root or in the atmosphere, damping the floors and under the hot water pipes once a day will be sufficient for them. The temperature of the house by night should range between 55° and 60°, and, if possible, a little ventilation should be left on all night. By day with sun-heat it matters little how high the temperature goes, providing plenty of fresh air is admitted. The rare *Laelia gouldiana* is in full growth and producing its flower-spikes. A few degrees more warmth and more copious waterings are necessary until growth is completed. *Vandates* is an Orchid that thrives well in a sunny corner of this house. The plant should be kept less moist than in summer, but it should not be subjected to over-dryness, or many of the lower leaves will fall off.

Burford Gardens, Dorking.

W. H. WHITE.

ROSE GARDEN.

STANDARD AND HALF-STANDARD BRIARS should be planted now without delay. Where the ground has been trenched within the last year ordinary deep digging will suffice. It is usual to plant the Briars in a double row, but this for the amateur is a mistake. Put down the line and cut out a trench in the usual manner of planting, then one is able to dig all the ground. Before putting soil on the roots a shovelful of prepared compost should be placed just beneath and just above the roots of the stock. If this compost contains some gritty material, rooting is much facilitated. Be careful to tread the soil firmly, and on no account plant deeply. If the "knob," whence spring the few fibrous roots, be placed 6 inches deep, this is ample; then during the coming summer deep and frequent hoeings will aid the production of roots immensely. Often the Briars are brought in with a very large "knob." This should be considerably reduced by means of a bill-hook, and the jagged edges smoothed over with a knife. Amateurs should endeavour to obtain a few extra tall standard Briars, upon which may be budded the lovely drooping Roses such as *Dorothy Perkins*, *Lady Gay*, *Alberic Barbier*, &c. Even the semi-drooping kinds, such as *Electra*, *Crimson Rambler*, *Mme. Alfred Carrière*, *Helene*, *Grüss*, an *Teplitz*, *Blush Rambler*, *Alister Stella Gray*, &c., make most beautiful objects when isolated by carriage drives or planted in the angles of a roserie. Very short Briars, from 15 inches to 18 inches in stem, are excellent for budding Tea Roses upon, so that they should not be despised. It is well after the Briars have been planted a week or two to make them firm.

THE SOIL of the Rose-beds may now receive a dressing of basic slag. Personally I am not much in favour of the winter dressing of manure, but there may be certain soils where it would be best.

LATE-FLOWERING ROSES should be freely planted and in bold masses. How splendid have been the beds of *Corallina*, *La France*, *Augustine Guinnoisseau*, *Enchantress*, *Mme. Jules Grolez*, *Mme. Abel Chatenay*, &c. I would strongly recommend the planting of a few

BOLD CLUMPS of ROSES, such as *Bennett's Seedling*, *Aimée Vibert*, *Félicité Perpétue*, *Flora*, &c. Plant about six plants of a kind in a bed and train them as pillars for a time, then allow them to grow together. The effect of such a block of Roses in June and July is indescribably beautiful, and well repays for the loss of an autumnal blossoming. There are some good autumnals, such as *Grüss*, an *Teplitz*, *Mme. Alfred Carrière*, *Alister Stella Gray*, and *Longworth Rambler*, where even the autumnal blossoming would be good.

EARTHING UP TEA ROSES.—This is an important detail of modern Rose growing, and it is so simple. Just mould up the base of the Tea, China, Polyantha, and Hybrid Tea Roses to a height of 5 inches or 6 inches. Other protective material is not needed unless the winter is very severe, but the earthing up should be done before frost.

RIDGING UP LAND for spring planting tends to sweeten it, and is almost as useful as a dressing of manure. Where a plot of ground has been manured each year it is well to afford such a dressing of lime. Most soils would greatly benefit by a liming now and then.

FRUIT GARDEN.

HARDY FRUIT TREES.—The weather has been very favourable for the work of root-pruning and renovating all kinds of fruit trees. Autumn is the most suitable season for this work. There was a notable absence of rain during the months of September and October. This, following a dry summer, has made it expedient to do a great deal of watering with the hose pipes. I am afraid that some people (especially the amateur) do not attach enough importance to the watering of fruit trees during the autumn months, especially trees which have been recently shifted. There is no doubt that a great deal of fruit dropping in the early summer may be traced to this cause.

The present is a suitable time to apply liquid manure to old trees which have carried heavy crops of fruit. The little trouble entailed in this work at this time of year will be amply repaid. The wells in the farm and stable yards are usually overflowing now with rich liquid. An effort should be made to have this carried to fruit quarters.

The present is a good time to renovate outdoor Fig trees which are in an unsatisfactory condition. It is not advisable to disturb the roots of the Fig to any great extent at any time, unless they have reached some uncongenial soil. This work consists of removing as much of the bad soil as possible without disturbing the main body of roots. Do everything possible to make good the drainage, so that water can pass freely through the soil. Mix plenty of old brick rubble in the new soil, which must be rammed quite firm as the work proceeds. Endeavour if possible to leave a trench between the new and the old soil, so that the roots may not again enter the bad soil. Any pruning that is necessary may be done now. This will consist of removing weakly sprays and old branches which have become bare at the base. This will make room for more young and fruitful wood, and considerably improve the appearance of the trees. As soon as there is danger of hard frost setting in the trees must be protected. The branches may be tied together and wrapped in Bracken or mats; but this should be delayed as long as possible, as the longer the wood is exposed the harder it will become, and this goes hand in hand with fertility. E. HARRISS.

Fruit Department, Royal Gardens, Windsor.

KITCHEN GARDEN.

FORCING ASPARAGUS.—It must be admitted that the flavour of Asparagus when forced does not approach that exquisite taste peculiar to this vegetable when grown in the natural way. At the same time a change of vegetable is always acceptable, more particularly so about Christmas time, when such delicacies are appreciated. Those who have large beds of Asparagus will be in a position to supply a nice dish of it towards the end of next month if a reasonable command of bottom and surface-heat can be procured and maintained. Heat from fermenting material prepared in the ordinary way suits very well, but that obtained from hot-water pipes is better. A pit that has been used for growing Cucumbers or Melons is as suitable a place for forcing Asparagus at this season as could be desired, so long as a surface temperature of about 60° can be maintained. The bottom-heat should be about 50°. Although the bottom-heat could be kept at that figure with hot-water pipes, a few inches of stable manure and leaves well mixed together and placed in the bed where the roots are to be forced will greatly aid the process by preserving moisture and warmth. A few inches of fine mould had better be placed on the top of the leaves and manure, on which must be placed the Asparagus roots, which may be done rather thickly, and some fine earth had better be worked in about and over the roots to the depth of 2 inches. A good watering with tepid water and the maintenance of the temperatures named, the Asparagus will soon produce young shoots. A frame prepared similar to that advised for *Seakale* last month answers very well, except that no pots will be required. Simply plant the roots among some fine soil on the top of prepared heating material.

ENDIVE.—To keep up supplies of this grand winter salad, fresh supplies of plants must be lifted and placed where they can be blanched. The Mushroom house is about the best place for blanching Endive at this season. Should the old Mushroom-bed material be wanted in the near future, it can be cleared out with the exception of 3 inches or 4 inches on which to place the Endive plants. These may be distributed rather thickly, only the plants should be lifted with a good amount of soil adhering to their roots. Future batches must be placed in the Mushroom house according to demand.

J. JEFFREY.

The Gardens, St. Mary's Isle, Kirkcudbright.

THE ROSE NURSERIES OF BRITAIN.

MESSRS. WILLIAM PAUL AND SON,
WALTHAM CROSS.

WHETHER one visits these famous nurseries during spring, summer, or autumn he may be assured of finding a wealth of Roses. There are acres of standards, half standards, bushes, and ramblers all in splendid condition. The collection of Roses varies from the glowing *Géant des Batailles* of bygone fame to the snowy purity of *Frau Karl Druschki*, grown here in thousands. Who can appraise the value of this last-named beautiful Rose to the florist or to the garden decorator and exhibitor? The Waltham Cross Nurseries abound in happy reminiscences of the Rose, and we were pleased to see what remains of the erstwhile fine old bush of *Mme. Plantier*, which is growing in an avenue nearly half a mile long. The sight of this grand bush when in full blossom caused the late Sir

Joseph Paxton to declare that he would plant quantities of this variety at the Crystal Palace. Now Messrs. W. Paul and Son have secured what seems to be a hybrid of this old Rose, and one which will prove of great value, flowering, as it does, fully a fortnight earlier. It is known as *Waltham Bride*, and is of rambling growth. It will be a grand kind to plant with the *Penzance Briars* and other early Roses, as it blossoms about the same time. A splendid sight were the thousands of Hybrid Teas, but our quest upon this occasion was for new Roses.

One of the loveliest new Roses it has been our good fortune to see this year is *Earl of Warwick*, and we have no hesitation in making the prediction that it will become a general favourite. Its blossoms are of a wonderful colour, the predominant tint being salmon pink. When the blossoms are produced upon cut-back plants they attain to a very large size. Two *Waltham Cross* novelties that owe their origin to *Caroline Testout*, hybridised with other Roses, are *Irene* and *Countess Cairns*. The first is an almost pure white Rose, and the other has the soft colouring of *Camoens*. This is one of the most beautiful of the decorative Roses, and both kinds have the lusty vigour of their seed parent.

Hybrid Perpetuals have received few noteworthy additions during recent years, so that we gladly welcome two which are Messrs. W. Paul and Son's latest introductions. One is *David R. Williamson*, a large flower of the *Etienne Levet* style, but with rough spiny wood. The growth is excellent and the plant has a true perpetual character, blooming freely until October. The other kind is *Dr. William Gordon*. It is a Rose of great depth of petal, the colour satin pink. We believe this Rose will be found in all winning stands. A Hybrid Tea of really taking characteristics is *E. T. Cook*. The large double primrose yellow flowers are in sunny weather beautifully suffused with peach pink, like a *Marie van Houtte*, but the growth is so stiff and sturdy that one would take the Rose to be a Hybrid Perpetual. The buds are quite red on the outside.

Of novelties for distribution next spring we were particularly pleased with *Warrior*. We had seen the variety earlier in the year upon plants grown in pots, and it favourably impressed us then as being a grand addition to the highly-coloured Roses which are now so much needed among Teas and Hybrid Teas. The oval-shaped buds and glowing colour reminded us of *Papa Gontier*, only that they are deeper in colour. Apparently the variety has a better growth than *Papa Gontier*, in fact it much resembles *Corallina* in this respect. The fine long stem one is enabled to cut with the blooms increases its value as a forcing Rose. *Celia* is another beautiful variety which will be much sought after; it is of the style of *Mme. Jules Grolez*, but paler in colour and of a bolder growth. The plant is very bushy, and as vigorous as *Caroline Testout*, differing from this latter in that it is fragrant.

Pot-grown pillar Roses have long been a feature of the Waltham Cross nurseries. It is only necessary to recall how wonderfully the pillar Roses were shown in the group which gained for Messrs. William Paul and Son the first of the fifty guinea cups offered for the most meritorious exhibit at the Temple Show in 1904. *Waltham Rambler* has achieved a wide reputation as being one of the best of the single-flowered ramblers. The huge bunches of blossom are of exquisite tint, reminding one of Apple blossom. Seen growing as free bushes this Rose is a charming sight, and we commend this method of cultivation.

A highly decorative Tea Rose, and one destined to fill an important place in our gardens, is *Mrs. A. Byass*. The plant is as sturdy as the variety *Marie d'Orleans*, and it has blossoms with thick petals, madder and rose with crimson touches here and there. This variety is especially good in the autumn. It is impossible to describe in detail the very many new Roses seen upon our visit to Waltham Cross, but we much liked those

mentioned below : Corallina, Sulphurea, Dainty, Queen Mab, Arethusa, Morning Glow, Salmoena, Fairy Queen, and Enchantress. These Roses are free in growth and profuse in flowering.

Varieties emanating from other sources and seen in large quantities were : Le Progrès, Joseph Hill, Pharisæer, Paul Lédé, Konigin Carola, Mme. Hector Leuilliot, Perle des Jaunes, Petrus Douzel, Comtesse Cayla, Farbenkonigin, Mme. Antoine Mari, Mme. Berkeley, Peace, Comtesse E. de Guigne, and many others. The beautiful perpetual flowering Rambler Perle des Neiges was doing well, and Perpetual Thalia apparently is never out of bloom, save in the winter and spring. It will make an interesting hedge plant, as its growth is only half climbing. The need of autumn-flowering Rambler Roses is fully recognised by Messrs. Paul, and they are directing their skill as raisers partly towards this end. The demand for pot Roses for forcing must be an extensive one, judging from the several houses devoted to them. Owing to the demand for pot-grown specimens of the lovely Rambler Roses, such as Lady Gay, Dorothy Perkins, and others, Messrs. William Paul and Son have prepared a fine stock of well-ripened plants suitable for this purpose. Gardeners should grow several of these for they make splendid decorative plants for spring and early summer use, and last in condition for many days. Immense quantities of Roses are grown in pots to meet the large demand from the Colonies and other countries, and Messrs. Paul have long made this a special branch of their business.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, W.C. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

Legal Points.—We are prepared to answer questions of law which have anything to do with the subject of gardening and forestry. The questions should be as clear and explicit as possible, so that there can be no doubt as to the point of the question. Answers will be found in a separate column headed "Legal Points."

FLOWER GARDEN.

PLANTING ALPINE GARDEN (R. T. S.).—This may be done during a great part of the season according to the plants intended for furnishing it. As a general rule, autumn is a very good time for most plants, especially those which flower early in the spring. For those which flower somewhat later, spring is quite as well or better for many things. Tender plants should not be placed out till towards the end of May. Dry, well-drained positions should be chosen for Saxifrages of the crusted varieties, Dianthus cæsius and plumarius, Alyssum montanum and A. saxatile, Androsace lanuginosa, Arabis, Artemisia, Aubrietia, Draba, Dryas octopetala, Erodium, Geraniums, Gypsophila, Iberis, Onosma, &c. Those requiring rather more shady and moist places include the Aquilegias, Campanulas, Aster alpinus, Anemones, Gentians, Primulas, Ranunculus, Mossy Saxifrages, Shortia, and Soldanella. For still more shady places may be used Epimediums, Astrantia, Cardamine or Dentaria, Funkia, Helleborus, Anemone Hepatica, Cyclamen, and Trilliums. A moist shady place will suit Ferns and Primula rosea,

P. japonica, and P. denticulata. A more boggy place should be given to Sarracenas, Droseras, and such like plants. A vertical position facing north is most suitable for Ramondias. For Cacti of various kinds the most suitable position is one facing south, planted in a mixture of brick rubbish and sandy loam. Planting should be done carefully, and the soil should be pressed very firm around the roots of the plants.

LAWN IN POOR CONDITION (C. W. H.).—We do not think the sea spray from two miles away would harm the lawn. The presence of moss suggests bad drainage. On the other hand, the dead grass suggests too much manure. The nitrate alone may be responsible for the damage done. If the lawn has become distinctly worse since the rain it is more than likely that the action of the liberated salts has damaged the young grass. If you are certain the subsoil is sufficiently drained—you may determine this by digging test holes where the moss and lichen are most abundant—we think the better plan will be to dig the lawn deep early this winter, and while in the rough apply a dressing of lime, half a bushel per rod, and leave it thus till February, when a similar dressing of soot may be given, and forked in later. In April following break down the soil and sow lawn grass seed afresh, without manures of any kind.

CYCLAMEN NEAPOLITANUM (Mrs. Dinesen).—It is not at all unusual for Cyclamen neapolitanum to remain dormant for a time after planting, and if the corms were sound at the time they were planted growth will begin next year, if not before. We should not advise them to be lifted as you propose, as they will be just as well where they are as in pots. After moving, Cyclamen take some time to recover, especially if the corms have been lying about and have got dry, and it is often two or three years before they make up their lost ground. The best position for these plants is between Ferns in a somewhat shady position where the Ferns are not too close together. Before planting the ground should be thoroughly broken up, and a layer of sharp sand placed around each corm. This prevents the soil from getting too wet around and rotting it before growth begins again. From 1 inch to 2 inches is the proper depth at which the corms should be planted below the surface of the ground.

AMARYLLIS BELLADONNA MAJOR (Mrs. Dinesen).—The best place for this plant is in a warm sunny position at the foot of a south wall. It will not succeed in a shady place, as it requires to be well ripened off each year to flower well. The compost suitable is a fibrous sandy loam with some leaf-soil and a little peat added, although the latter is not essential. As these bulbs flower in the autumn, the best time for moving is directly the leaves have died down in June, and they should not be kept out of the ground too long before replanting. Even when moved under these conditions, and with care, this plant often fails to flower the same season. The bulbs require time to establish themselves, and of a row of nearly fifty replanted this summer not one has shown a spike of flowers, although the bulbs are sound and will undoubtedly grow next spring. We should advise that the one planted in the shady place be carefully lifted now and put in a warm sunny place, but not potted. If the roots are not injured it will not suffer. Cover up the plants well during frosty weather with litter or dry leaves, and they will start into growth in spring, and probably flower in the autumn, although one must not expect them to flower as freely as established plants.

Norna.—Your Rosemary may be cut back as soon as the harsh winds of March are over, as a full season of growth still remains. At the same time, should any shoots show a tendency to grow out of bounds, they may be shortened back any time during the summer.

Remtap.—We have never used the mixture as given by you, although we have a very good recipe that is somewhat similar. It is as follows : Feed your Chrysanthemums until they come into flower with one part nitrate of soda, one part dried blood, two parts superphosphate, one part

kainit, and a quarter of a part of sulphate of iron. Apply half an ounce in a gallon of water every week, and its beneficial effect will very soon be seen. The same quantity of this mixture, mixed with two parts of soil and given to the plants in 3-inch or 10-inch pots, also answers splendidly.

E. Grimshaw.—It is advisable to give Lily of the Valley beds a covering of well-decayed manure in the early autumn—say October. The plant is a surface rooter and soon exhausts the soil, and when in active growth it is difficult to feed, unless liquid manure is given. A mulch given now will be in good condition for the roots by May.

H. Evans.—Solanum crispum (the Potato tree) is a native of Chili and is the hardiest of the ornamental Solanums. It ought certainly to grow well with you if S. jasminoides and other tender plants winter well. It will grow 10 feet or 12 feet high, and bears in late summer clusters of purple-blue flowers, which would probably be succeeded by the whitish berries in your district. Plant it in a deeply dug soil in a sheltered spot, and we have no doubt that it will thrive well with you.

TREES AND SHRUBS.

AMPELOPSIS VEITCHII (H. T.).—When growing freely this is especially liable to produce the large leaves with very long stalks spoken of by you, except on the youngest shoots. Anything that encourages particularly vigorous growth induces the formation of these large leaves. From this character the specific name of inconstans has been applied to it under the generic title of Vitis, which now includes all the different forms of Ampelopsis, the Virginian Creeper, formerly Ampelopsis hederacea, being now Vitis quinquefolia. You ask how fresh names arise, a somewhat difficult question to answer. Botanists tell us that as science progresses changes are inevitable, for perhaps recent discoveries supply missing links and obliterate the line of separation between two genera, hence they are joined into one.

SOWING HEATHER SEED, &c. (B. M.).—Your plan of planting turves of Heather on the plot you wish to cover is a good one if you take care to cut them thick enough, say, 6 inches. You might sow seeds in addition, but before doing so it would be necessary to clear the ground of grass and other plants not desirable, but not digging it deeply. It would then be simply necessary to sprinkle the seed over the ground without attempting to cover them with soil. See that the seed is ripe before gathering, but not so ripe as to shake out. The seed-bearing shoots should be cut off and thrust into a bag, and afterwards allowed to dry by spreading over sheets of paper or something of the sort. The seed should then be rubbed and shaken out. Early spring is a good time to sow. The seeds of Cranberries are better separated from the pulp, but Juniper seeds may be sown as gathered in the fruit. Both germinate quite freely.

Norna.—Cupressus lawsoniana Allamii is rather too upright to form an ideal hedge plant. Still in tint of foliage there is nothing else its equal, hence we think you cannot do better than plant it for the purpose named. Pruning may be done in spring before it starts into growth, and the plants gone over with the knife soon after midsummer in order to curtail any shoots that may show a tendency to grow out of bounds.

F. Pavitt.—There is nothing unusual in the Weigela flowering both in spring and autumn, and each year there are many instances of it in gardens. Pruned and unpruned plants flower in the same way, and it is the result rather of an early restart into growth after pruning, or of quickly formed spurs or laterals after flowering on the bushes left alone. Some varieties, too, are more prone to profuse flowering than others, and a spell of late sunshine materially assists to the same end.

L. M. G.—There is a considerable choice of subjects available for the purpose, among the best being Vitis (Ampelopsis), quinquefolia (the Virginian Creeper), Aristolochia Sipho, a rapid grower with huge, heart-shaped leaves ; Jasminum officinale (the common white Jessamine), whose sweet-scented flowers are borne throughout the summer ; Forsythia suspensa (yellow flowers, borne in March) ; Clematis flammula, which bears a cloud of small white flowers in August ; and Clematis montana, with larger white starry flowers in May. If an evergreen is needed you must fall back on the Ivy.

B. T. F.—The best time to replot the different shrubs enumerated by you is as soon after flowering as possible, but if it is necessary to cut them back after blooming the new shoots must just be allowed to start before replotting. Should no pruning, however, be needed, the potting may with advantage be done directly the flowers are over. At the same time, with many of these annual replotting is not necessary, as they may be kept in health and good flowering condition for years provided they are assisted with

weak liquid manure and soot water during the growing season, throughout which time they are best plunged up to the rim in an open sunny spot out of doors.

H. J.—The Irish Heath (*Daboecia polifolia*) may be grown in pots, but it is not so satisfactory in this way as when planted out in the open ground. It is very rarely treated as a pot plant as it blooms from May to September. The Winter Heath (*Erica carnea*), on the other hand, blooms naturally at a time when flowers are scarce. A good light position is necessary, and the temperature of the structure should not at any time exceed 55°, otherwise the flowers will quickly pale. The best time to pot them is at once. Place in a sheltered spot out of doors. They need not be taken into the greenhouse till nearly Christmas.

Rosebank.—The Thorn you send is *Cratægus Crus-galli* var. *prunifolia*. Your *Abies nordmanniana* is affected by a destructive disease of which very little has yet been found out, but at which several scientists are now working. If your plants are very bad you had better burn them, as other *Abies* in the vicinity are almost sure to become infested. If, however, any trees are only slightly affected, syringe them about once a fortnight with soft soap and paraffin, half a pint of the latter being added to 1½ gallons of soft soap water. This has been found to check the disease and cure plants that were not in a very bad state.

ROSE GARDEN.

BLOOD MANURE FOR ROSES (A. W. B.).—When in a dried condition this is a splendid manure for Roses, but it is very strong, and must be used cautiously. It is liable to promote growth and foliage at the expense of blossom if used excessively. We should advise the application of this manure in early spring, immediately following the pruning. Mix it with earth, and give the land a thin dressing. In May and June further applications in liquid form would be beneficial. There is no doubt that dried blood enters largely into the composition of certain manures. We are surprised it is not more freely used by Rose growers, but it is not easily procured by the majority. You must bear in mind the golden rule that the strong and vigorous Roses can utilise manures much more freely than the weakly plants; indeed, it is positively harmful to give these latter manure at all.

PREPARING SOIL FOR ROSES (C. Leslie Fox).—Roses are very partial to clay, but it must be well broken up. The blue clay which you mention is of the worst kind. In order to render this useful some of it should be burnt and then incorporated with the other. We should advise you to remove this soil to a depth of 2 feet, and replace with good top spit soil from a meadow, mingling with this some well-rotted cow manure. Should you be unable to procure this loam, then take steps to break up the clay and work in some sand and any burnt refuse you can command, also a good quantity of lime. When planting give each tree or bush a peck of good compost made up as follows: Old pot soil one part, well-rotted manure one part, burnt garden refuse or wood ashes one part, and brook sand one part. Mix all thoroughly well together and shake it well among the roots. Tread very firmly, of course only planting when the weather is fine.

MOVING ROSES (Thornlea).—We are not surprised that your Roses have not produced many flowers if you have not pruned them for five years. In the first place, you must thoroughly dig the soil; in fact, you ought to bastard trench it, as explained and illustrated in THE GARDEN for the 7th inst. As the soil is clayey and heavy, mix with it burnt earth, long stable manure, sand, &c., so as to improve its mechanical condition. When bastard trenching you should dig in some farmyard manure at the bottom of the trench, for the Rose likes a fairly good soil. By trenching as advised, placing farmyard manure at the bottom, and mixing the other ingredients with the bulk, your soil will make a good one for Roses. The bushes ought to be pruned every year. As yours have been left unpruned so long, they must, we imagine, be a thicket of weakly shoots. Cut out some of the weakest from the centre of the plant so as to admit light and air. Bush Roses should be kept open in the centre. Shorten the growths that you leave about one-third. Transplanting should

be done in October or early November. Then in March you should thin out more of the old and weakly growths, so that, roughly, the remaining ones are, say, 4 inches apart. Cut back to two or three live buds that will break into growth. In pruning Hybrid Perpetual bush Roses, which yours probably are, one usually leaves only from 3 inches to 6 inches (or 12 inches if very vigorous) of the wood made the previous season. You should have done this every year. Cut to buds pointing outwards so as to keep the centre clear.

Constant Reader.—We can recommend the following: Cheshunt Hybrid, Flora, *Félicité Perpétue*, The Wallflower, Robusta (Bourbon), and Pink Rover.

Norma.—The following would be suitable as large bushes: Grüss an Teplitz, Mme. Alfred Carrière, Longworth Rambler, and Alister Stella Gray. Do not prune the long growth of the Rose Dawn, but bend it over or slightly bend in a circular manner, when it should bloom from several buds.

A. W. B.—We believe the Rose to be *G. Nabonnand*. It has been introduced now some years. The variety would soon attain a height of 5 feet. Many of the strong growing Teas of the non-climbing group make growth quite strong enough for walls of 6 feet to 7 feet high. They are far more useful than the too rapid growing Roses of the *Réve d'Or* type, although these latter are grand upon lofty walls.

Mrs. M. Thompson.—The leaves enclosed showed signs of an attack by thrips. This pest is always most prominent when a dry atmosphere prevails. We think if you made the foliage distasteful to them by syringing well beneath with a strong solution of quassia there would be an abatement of the evil. Another excellent preventive of insect pests upon Roses is paraffin soap; but in the application the syringe should be well directed beneath the foliage. Fortune's Yellow is a lovely Rose, and well repays any special care. A reduction of the old wood will often free such Roses of these insect pests, but this must be regulated by the young growth made.

FRUIT GARDEN.

TRENCHING FOR FRUIT TREES (J. L. S.).—We cannot find any mention of the work of trenching, leaving the ground surface fully 2 feet above its former level. You should trench the land some weeks at least before planting, then the sinking afterwards, supposing that the soil is made firm at the time of planting, will not be sufficient to do any harm. If you trench your ground at once and do not plant before, say, the end of November, and make the soil firm a few days before planting by treading, then it will not sink a great deal afterwards. Of course the more deeply disturbed the soil is the more will it sink. If the trenching is done only a very short time before, then in planting you must allow for the plants sinking somewhat. Make it as firm as you can, however, by treading, let a few weeks elapse between trenching and planting, and no harm will result if you take care not to plant deeply.

REPLACING WALL FRUIT TREES (H. P. C.).—Trench the ground 2½ feet, adding a barrowful of good loam where the young trees are to be planted and a good dressing of farmyard manure to the border generally, for, probably, vegetable crops are grown there all the year round. The best Apricots are Moorpark, Gros Pêche (probably the two best), Frogmore Early, New Large Early, Shipley's, and Oullin's Early Peach. Pears for August: Doyenné d'Été, Jargonelle, Souvenir du Congrès. September: Williams' Bon Chrétien, Beurré Superfin, Fondante d'Automne, Marguerite Marillat. October: Beurré Fouqueray, Comte de Lamy, Louise Bonne of Jersey, Seckle, Beurré Bosc, Beurré Hardy. November: Durondeau, Baronne de Mello, Doyenné du Comice, Conference, Marie Louise, Thompson's. December: Beurré Bachelier, Beurré de Jonghe, Glou Morceau, Winter Nelis, Beurré Diel. January: Nouvelle Fulvie, Easter Beurré, Le Lectier, President Barrabé. February: Duchesse de Bordeaux, Olivier des Serres, Ne Plus Meuris, Beurré Perran. March: Josephine de Malines, Bergamotte d'Esperen, Beurré Rance. Good Peaches are Alexander, Waterloo, Early Rivers', Duchess of York, Grosse Mignonne, Condor, Crimson Galande, Royal George, Stirling Castle, Noblesse, Dymond, Barrington, Prince of Wales, Gladstone, Sea Eagle. Good Nectarines are Early Rivers', Lord Napier, Elruge, Pineapple,

Violette Hâtive, Downton, Spencer, Hardwicke Seedling, Humboldt, Victoria. Of Plums, plant Greengage, Bryanston Gage, Denniston's Superb, Oullin's Golden Gage, Golden Transparent Gage, Reine Claude de Bay, Coe's Golden Drop, Jefferson, Kirke's (all dessert sorts), and of cooking Plums, Archduke, Monarch, White Magnum Bonum, Pond's Seedling. On the walls facing north plant Morello Cherries, and one or two sweet Cherries if you wish to prolong the season of the latter. For the same reason plant one or two Plums. Pears and Plums would do best on the wall facing east.

VICTORIA PLUM TREES (Wales).—There seems to be no doubt that the cause is bad soil. The roots must have reached a bad subsoil. The fact of the shoots dying away would seem to point to their not ripening properly, and if the roots are in unsuitable soil this is what would happen. The thing to do is to dig a trench all round the trees at about 5 feet from the stems; then fork away the soil, and especially from underneath, until you come to good fibrous roots. Any roots that are growing directly downwards should be lifted and replaced in a horizontal direction. Place some brick rubble for drainage below the roots, and replace the soil taken out with turfy loam, with which lime and mortar rubble have been freely mixed. Once you get the roots established in fresh soil we think your trees will grow satisfactorily. It seems as though they were wrongly planted in the first place; probably the soil was not properly prepared.

PEARS (Wales).—The conditions of your garden ought to suit Pears well. If the garden is an old one and has been heavily manured with farmyard manure, then a dressing of lime would do good. You have done well to trench the land. When planting take care to open out a big hole for each tree and plant firmly, placing some good soil immediately above the roots. Give a top-dressing of manure in the late spring. Your list of Pears is a good one. You ought to have Michaelmas Nelis, Thompson's (October), Beurré Superfin (October to November), Emile d'Heyst (October to November), Winter Nelis (November to February), Josephine de Malines (December to February), Olivier de Serres, and Duchesse de Bordeaux (February to March). Your list is wanting in late sorts. They are all early or mid-season. Of Damsons, plant Farleigh Prolific and Bradley's King. You do not say whether you want dessert or cooking Plums. The first following six are dessert, the last four are cooking: Denniston's Superb, Kirke's, Jefferson, Oullin's Golden Gage, Reine Claude de Bay, Coe's Golden Drop, Victoria, Pond's Seedling, Belgian Purple, and Monarch.

Gladys Owen.—It is no use trying to store such Pears as Jargonelle and Williams' Bon Chrétien. They are simply early varieties, and, in order to be had at their best, must be eaten as gathered from the tree. If you wish to store Pears so as to have some during the winter let us know, and we will give you the names of the best sorts to grow.

E. Grimshaw.—To fruit Strawberries in pots, the plants should have been potted up in August. It is useless now to buy small runners and pot for forcing; it is too late for the plants to make roots this season. You would do well to purchase plants prepared either in 5-inch or 6-inch pots. The best Strawberry for your purpose would be Royal Sovereign. If you have young plants you can lift them in early spring and place in frames for early fruiting.

Mrs. Phillips.—The gumming of the end of the branches of your old Greengage tree after the dead branches have been cut away is nothing to be alarmed about. That part of the shoot from which the dead part has been cut away will probably make two or three more shoots next spring to fill the space left bare by the dead branches taken away, and this new growth will prevent any further gumming. What gumming there is should be brushed away with soap and water and a hard brush.

H. M.—The cause of the indentations in the Pear Marie Louise must be attributed to an attack of frost when the fruit was small. Had the whole of the surface of the fruit been frost-bitten the fruit would have fallen and died, but seeing that portions only here and there were affected, those in consequence have hardened and refused to swell, while the parts of the surface not affected have swelled in the usual way, hence the indentations. It is seldom that Pears in the South of England are affected in this way, in consequence of the greater immunity from late spring frosts which they enjoy, but the complaint is common in colder localities.

KITCHEN GARDEN.

CUCUMBERS IN COLD FRAMES (*Only an Amateur*).—You should find no difficulty in being able to grow Cucumbers in cold frames if you will carry out the following brief instructions. About the middle of March put up a heap of half fresh manure and half leaves. As soon as the heap is well heated, which it will be in about a week or nine days, let it be opened out to let out the rank steam. Put together again, and reopen in the course of another week for the same purpose. With it make a bed 3 feet high and 1 foot longer and 1 foot wider than the frame. You can then add fresh manure later when necessary. Place on the frame, half fill it with good soil, and put the lights on, so that the soil may get warm. The seeds should be sown at the end of March or beginning of April. It is no use attempting to grow Cucumbers in a cold frame before this date. The seeds should be sown in 3-inch pots, one seed in a pot, and placed in the frame. As soon as the young plants have three leaves they are large enough to plant out. The after management will consist of looking well after the ventilation of the frame, watering the plants, keeping them clear of insects, and thinning out the growths occasionally. It will take five plants to plant your frame—one in the middle, and one in each corner.

Only an Amateur.—It is difficult to account for your failure in the culture of Vegetable Marrows. They are among the easiest of vegetables to grow. If you have an old manure heap in your garden turn it over in the course of the winter and add to it its bulk of soil. Plant your Marrows in this heap 4 feet apart the last week in May or the first week in June, according to whether it happens to be cold or warm. The best sort to plant is Moore's Vegetable Custard. All you have to do during the summer is to give the plants occasional waterings and they will grow luxuriantly and give you plenty of fruit. Another way is to plant anywhere in your garden where they can get some sunshine, first digging out a hole a foot deep and a foot wide, and half filling it with rotten manure, adding the same depth of soil to fill up the hole. Plant one plant in each hole, and let the holes be 4 feet apart. The male, or unfertile flowers, are far more numerous than are the female ones. The latter are distinguished by having a small swelling at the base.

MISCELLANEOUS.

T. T. T.—There is no recent work that we are aware of on the subject.

A. M. B.—Carbolic acid will not dissolve in water; nor will it mix with it unless it is made to do so by force. I. can easily be made to do so, however, by violent stirring, say, with Birch twigs, or even violent syringing. It is lighter than water, and, like paraffin, floats unless mixed by mechanical means. But once mixed it remains in that state much longer than paraffin, and is fit to use for the purpose recommended for a day or two at least.

J. O. E.—We have not read of kainit being destructive to wireworm. It is a mineral salt, and is found chiefly in deposits of a saline nature in various parts of Germany. Kainit is the primary provider of potash in chemical manures, the proportion varying from a low percentage in crude kainit to a much higher, and therefore more costly percentage, in nitrate of potash, which is more highly refined. Used as manure it should be applied at the rate of about 3lb. per rod, with an equal quantity of superphosphate or bone-flour, early in the winter, and be at once dug in. To destroy wireworm gas lime should be spread over the ground at once at the rate of two bushels to three rods, and dug in after lying exposed to the air for four weeks.

BURNT BONE DUST (*H. S.*)—While burnt bone crushed into powder has some manurial elements, it is but too evident that very much of the phosphate bones furnish would have been dissipated or lost in the process of combustion. To have the full value of bone phosphate the bones should be finely crushed to dust and then applied to the soil. In that state it decomposes slowly, and is best suited for fruit, such as Vines, Peaches, or other trees, as the effects of the bone dust are felt for several years. The quickest action from bone is found when subjected for a time to a powerful jet of steam, as that softens, and when crushed up active bone flour or bone phosphate is formed. Superphosphate is obtained also when bones are subjected to a bath of sulphuric acid, which also softens them. We should advise the use of your bone dust to furnish any material benefit to vegetables, at the rate of 5lb. per rod, adding to it 3lb. of kainit (potash), and in the spring 2lb. of finely crushed sulphate of ammonia as the best form for furnishing nitrogen.

NAMES OF PLANTS.—*Andover*.—1, *Cryptomeria elegans*; 2, *Cupressus sempervirens*; 3, *C. lawsoniana erecta*; 4, *C. pisifera plumosa*, better known as *Retinospora plumosa*; 5 and 6, *C. lawsoniana*, a variable species; 7, *Stachys lanata*.—*Constant Reader*.—1, *Calcecephalus Brownii* (*Leucophyta Brownii*); 2, *Zebria pendula* (*Tradescantia*

zebrina); 3, *Sedum sarmentosum* var. *variegatum*.—*J. A. Smith*.—The four specimens (not six as stated by you) are all varieties of *Codiaeum variegatum*, popularly called Crotons. The leaves, even on the same plant, vary to such an extent that it is impossible to name them with absolute certainty, but, after comparing them with living specimens in a large collection, we think the following are all correct: 1, *Chelonii*; 2, *Countess*; 3, *Reidii*; 4, *rodeckianus*.—*Puzzled*.—*Salvia Horminum* varieties, with violet, rose, and pale coloured bracts.

NAMES OF FRUIT.—*W. B., Preston*.—The small Apple is a late fruit of Irish Peach; large Apple, Ecklinville Seedling.—*D. A. R.*—The Apple is *Mère du Ménage*.—*W. C.*—1, *Cellini Pippin*; 2, *King of the Pippins*; 3, *Emperor Alexander*; 4, *Lord Derby*; 5, *Reinette de Canada*; 6, *Cox's Orange Pippin*; 7, *Wellington*; 8, *Flander Pippin*; 9, *Bismarck*.

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C. HARMAN PAYNE.

(To be continued.)

SOCIETIES.

NATIONAL CHRYSANTHEMUM SOCIETY'S SHOW.

THE great annual exhibition of this society was held at the Crystal Palace on the 1st, 2nd, and 3rd inst., and a splendid display of Chrysanthemums resulted. Some of the classes were very closely contested; in fact, in most of them competition was keen. There were few incurred blooms shown; the Japanese varieties are gradually ousting them from the exhibition table. The blooms of the latter appeared to be larger than ever this year, although many of them lacked finish. The blooms of Japanese sorts shown on boards were finer than those shown in vases; in fact, the latter class seems to be less popular than it was when first instituted. Taking the show as a whole, it was one of the most attractive we have seen. Mr. Gerald Dean is acting as secretary *pro tem.*, and the heavy work in connexion with this show was most satisfactorily carried through by Mr. Dean and his colleagues.

The first class was for a floral display of Chrysanthemums and suitable foliage plants in pots, arranged on the floor in a circular space of 300 superficial feet. Mr. Norman Davis, Framfield, was first, with a splendid display of plants and cut blooms, some of the latter being very fine, thus winning the gold medal; second, Messrs. Peed and Son, West Norwood, S.E.

In the great vase class for twelve vases of specimen blooms of Japanese varieties, distinct, five blooms of each, the special first prize of twelve guineas, given by the Crystal Palace Company, was won by Mr. W. Iggulden, Lock's Hill Nurseries, Frome, with a very fine lot, such as Valerie Greenham, Henry Perkins, Miss Fulton, Mrs. Barkley, and F. S. Vallis were splendid. Mr. Chas. Beckett, Chilton Lodge Gardens, Hungerford, was second; F. S. Vallis, Mrs. T. Dalton, Mrs. Barkley, and others were very good. The third prize was won by Mr. C. J. Dicker, gardener to the Hon. Miss Canning, Frank Court, Sussex.

For six vases of incurred blooms, distinct, the first prize, given by the Ichthemio Guano Company, Ipswich, was won by Mr. Higgs, Fetcham Park Gardens, with a handsome exhibit; second, Mr. G. Hunt, Ashted Park Gardens. No more entries.

In the class open to affiliated societies for a table of Chrysanthemums arranged with foliage, the first prize was won by the Epsom and District Chrysanthemum Society (blooms grown by Mr. G. Hunt); the Wanslead and District Society was second (blooms grown by Messrs. G. Fisher, H. Runciman, T. Smith, W. Jones, R. Place, N. Crone, and J. Croit.)

For thirty-six incurred blooms, distinct, Mr. W. Higgs, Fetcham Park Gardens, Fetcham, was first with a grand lot of flowers; E. B. Burge, Duchess of Fife, Topaze orientale, C. Curtis, Buttercup, and others were finely shown. Mr. W. Mease, gardener to A. Tate, Esq., Leatherhead, was second with smaller blooms; Mr. G. Hunt, Ashted Park Gardens, Epsom, third. No more entries.

For forty-eight Japanese blooms, distinct, Mr. W. Higgs, Fetcham Park Gardens, was first with a very fine exhibit, all the flowers being good. Especially good were Edith Smith, Mildred Warr, W. A. E. Heiningham, and others. Second, Mr. J. Lock, Oatlands Lodge Gardens, Weybridge, who showed many good flowers also; third, Mr. A. J. Davies, Moor Hall Gardens, Harlow. There were eight more exhibits in this class.

The first prize for six best specimen plants was won by Mr. H. Runciman, Nightingale Road, Waustead; second, Mr. Haselgrove, gardener to W. Brander, Esq., Sydenham Hill; third, Mr. N. Taylor, Tewkesbury Lodge Gardens

Forest Hill. There were no exhibits in the other classes for plants. A first prize for one specimen bloom of any variety was given to Mr. H. Parr, Trent Park Gardens, for a bloom of Mrs. Pockett, the only exhibit.

The president's prize of five guineas for twenty-four Japanese blooms, distinct, was won by Mr. T. Stevenson, Woburn Place Gardens, Addlestone, with a bright exhibit of good blooms; especially fine were Kathleen Stoop, Mrs. Mease, and W. E. Church. Second, Mr. T. Waller, Abney House Gardens, Burne Road. Henry Perkins, F. S. Vallis, and Mildred Ware were fine blooms. Third, Mr. George Hall, Metchet Court Gardens, Romsey. There were twelve other exhibits in this class.

For twelve Japanese, distinct, there was keen competition. Mr. T. Stevenson, The Gardens, Woburn Place, Addlestone, being first, with splendid blooms; second, Mr. James Lock, The Gardens, Otlands Lodge, Weybridge; third, Mr. G. Halsey, The Gardens, Riddings Court.

For a vase of white Japanese blooms, Mr. Perkins, The Gardens, Greenlands, Henley, was first, with Edith Smith; second, Mr. A. Jefferies, Moor Hall Gardens, Harlow, Essex; third, Mr. C. Beckett, Chilton Lodge Gardens, Hungerford.

The first prize for a vase of yellow Japanese blooms was won by Mr. Jefferies with F. S. Vallis; second, Mr. Rymant, The Gardens, North Ockendon, Romford; third, Mr. H. Parr, Trent Park Gardens, all showing well. For one vase of blooms any other colour, Mr. Rymant was first with Henry Perkins; second, Mr. Jefferies; third, Mr. J. Simon, Bexley.

For twelve incurved blooms, distinct, Mr. W. Higgs was easily first with fine flowers; second, Mr. W. Mease; third, Mr. J. Simon, The Gardens, Ravenswood, Bexley.

For six incurved blooms of one variety, Mr. C. J. Suter, The Gardens, Woodhatch Lodge, Reigate, was first with a splendid lot of W. Biddle; second, Mr. G. Halsey, Riddings Court Gardens, with C. H. Curtis; third, Mr. S. Cole, Althorp Park Gardens.

For six varieties of Chrysanthemums, such as are grown for market, Mr. J. A. Humphries, The Gardens, Hill House, Maisey Hampton, Gloucester, was first with O. J. Quintus, pink; R. de Preceps, crimson; Source d'Or, gold; W. Holmes, crimson; Crimson Pride, and White Quintus. This was the only entry.

The first prize for twelve large flowered reflexed blooms was won by Mr. T. Caryer, The Gardens, Adenholme, Weybridge, with splendid flowers; second, Mr. C. Brown, Abbots Langley; third, Mr. J. Humphries.

There were only two entries in the class for twenty-four large-flowered Anemone blooms, Mr. C. Brown, The Gardens, Langley House, Abbots Langley, being first; second, Mr. Humphries, The Gardens, Hill House, Maisey Hampton, Gloucester. The same two competed in the class for twelve large-flowered Anemone vases, Mr. Brown being first and Mr. Humphries second. Mr. Brown and Mr. Humphries were again first and second respectively in another class for twelve Anemone varieties.

Mr. T. Caryer, The Gardens, Adenholme, Weybridge, was first for nine Pompons, distinct, in vases, showing a charming lot. La Vogue, rich yellow, was very fine. Second, Mr. C. Brown, Abbots Langley; third, Mr. J. Humphries. Mr. J. Humphries won for six Anemone Pompons, distinct, an extra prize being awarded to Mr. C. Brown. Mr. Brown was the only exhibitor of six varieties of singles in vases, winning first prize.

For a vase of six Japanese blooms, one variety, with any foliage, Mr. Jefferies, Moor Hall Gardens, Harlow, was first with a handsome exhibit; second, Mr. D. Fairweather, The Gardens, B'rons, Canterbury; third, Mr. G. Halsey, Riddings Court Gardens.

The best basket of autumn foliage and berries was shown by Miss Cole, The Vineyard, Feltham. An attractive exhibit gained first prize for Mr. A. Robertson, St. John's Wood, N.W., in the class for two vases of Pompon Chrysanthemums.

The exhibits in the class for three sprays of Chrysanthemums and light foliage made a charming display, Miss Cole winning first prize with a yellow single variety. Miss Fairweather, B'rons, Canterbury, was second; and Mrs. B. ewster, St. Peter's Street, Canterbury, third. Miss Cole showed the best hand-basket of Chrysanthemums in the ladies' class.

AMATEURS.

In the class for eighteen Japanese blooms, distinct, the first prize was won by Mr. W. Trowell, gardener to D. Link, E-q., Beckenham, Florence Molyneux being a splendid bloom; second, Mr. Charles B-lis, gardener to Mrs. Faulkner, Forest Hill; third, Mr. F. Cordell, gardener to A. F. Blades, E-q., Reigate. There were three other competitors. The special first prize was given by Mr. Seward, Hanwell.

There was keen competition for twelve Japanese blooms, distinct, Mr. F. Cordell winning first prize with an excellent lot of flowers; second, Mr. A. Robertson; third, Mr. C. B. Gabriel, Hursell, Surrey. Mrs. T. W. Pockett in this exhibit was splendid. Only two competed for twelve incurved blooms, distinct, Mr. A. O-mond, gardener to A. Kempf, Esq., South Norwood, being first; second, Mr. Humphries, Maisey Hampton.

In another class for eighteen Japanese blooms, distinct, the first prize was won by Mr. A. F. Hill, Oakfield Street, Cardiff, with an excellent lot, Miss Alice Byron being especially fine; second, Mr. R. E. Mason, South Weald, Brentwood, F. S. Vallis being splendid; third, Mr. T. Sharpe, Greenhithe. There were several more competitors.

The first prize for two bouquets of Chrysanthemums was won by Mr. T. W. Stevens, gardener to W. H. Stone, E-q., Sydenham. Judging from the exhibits in this class the Chrysanthemum is not a suitable flower for bouquets.

Mr. A. F. Hill was first for twelve Japanese, distinct, with a very good lot; second, Mr. T. Sharpe; third, Mr.

R. E. Mason. The exhibits in this class were very meritorious, and several extra prizes were awarded. Only two competed for twelve incurved blooms, Mr. C. M. Collingwood, St. David's Hill, Exeter, being first; second, Mr. T. Sharpe, Greenhithe.

Some good blooms were shown in the vase class, Mr. H. Pestall, gardener to F. S. Wigram, Esq., Elstow, Bedford, winning first prize with a handsome exhibit of the variety F. S. Vallis; second, Mr. C. B. Gabriel, Hursell, with good Mildred Ware; third, Mr. R. E. Mason, South Weald, Brentwood.

There were numerous smaller classes for amateurs, in which the following were the first prizewinners. Six Japanese, distinct: Mr. A. O-mond, gardener to A. Kempf, Esq., South Norwood. Six Japanese, one variety: Mr. Stevens, gardener to W. H. Stone, Esq., Sydenham. Six incurved, distinct: Mr. A. Robertson, gardener to F. J. Yarrow, Esq., St. John's Wood, N.W. Six incurved, one variety: Mr. A. O-mond. Six bunches of Pompons, distinct: Mr. J. Humphries, gardener to J. L. Burgess, Esq., Maisey Hampton. Six Japanese, distinct: Mr. A. F. Hill, Cardiff. Six Japanese, three varieties: Mr. A. F. Hill, Cardiff, with splendid blooms. Six incurved, not less than three varieties: Mr. T. Sharpe, Greenhithe. Six incurved, three varieties: Mr. T. Sharpe. Six Japanese, distinct (for those who have never won a prize at the National Chrysanthemum Society's show): Mr. Grant, Wrotham Road, Gravesend. Mr. Grant was also first for three Japanese blooms, distinct.

NON COMPETITIVE EXHIBITS.

There were many magnificent displays of Chrysanthemums and other flowers by nurserymen, to which, unfortunately, we have not space to refer in detail.

Chrysanthemums.—H. J. Jones, Lewisham, had a very fine display of Chrysanthemums in great variety, most attractively arranged; W. Godfrey, Exmouth, also showed a very handsome group of large-flowered varieties; Clibbens, Altrincham, exhibited single and other Chrysanthemums in a large group; W. Wells and Co., Merstham, showed a bright group of Chrysanthemums that included many novelties; Cannell and Sons, Swanley, sent a collection of splendid cut blooms of Japanese varieties, zonal Pelargoniums, and Cannas; J. Laing and Sons, Forest Hill, set up a group of Chrysanthemums in pots; T. Philip Ladds, Swanley, exhibited a group of market varieties of Chrysanthemums, some in boxes, showing how packed for market; M. Larsen, Enfield, showed a bright group of pot Chrysanthemums.

Other plants.—Other exhibits were Begonias and Carnations from Peed and Son, Norwood; Celosias, &c., and fruit from H. Cannell and Sons, Swanley; a beautiful lot of winter-flowering Carnations from Cutbush and Son, Highgate; an excellent group of shrubs from David Russell, Brentwood; a grand lot of Lilies, Azaleas, Rhubarb, &c., from T. Rochford and Sons, Broxbourne, grown from retarded bulbs and roots; winter-flowering Carnations by Mr. S. Mortimer, Rowledge, Farnham, Surrey; Roses from Hobbies, Limited, Dereham; an excellent lot of winter-flowering Carnations, including several fine new sorts, from George Byes and Co., Leicester; and Carnations, &c., from C. Engelmann, Saffron Walden, Essex.

Horticultural Sundries.—These were shown by W. Wood and Son, Wood Green; Dowel and Son, Hammer-smith; Harriet Scott, Woodside, S.E.; and G. H. Sage, Manor Road, Richmond. Table decoration appliances by Mr. Robert Sydenham, Birmingham; J. Williams, Ealing; and A. Edwards, Arnold, Notts. A new bulb-holder for Hyacinth glasses, &c., by Simpson, Sons, and Co., Lillithgow. Ornamental tubs for shrubs, &c., from Champion and Co., City Road, E.C.; and guano from the Ichthemic Guano Company, Ipswich.

There were a few classes for Grapes, Apples, and Pears, and Mr. Robert Sydenham, Tenby Street, Birmingham, offered numerous prizes for exhibits of vegetables grown from seed supplied by him. Some excellent produce was shown in competition for Mr. Sydenham's prizes, the first prize for a collection of vegetables being won by Mr. H. Folkes, The Gardens, Gaddesden Place, Hemel Hempstead.

SOUTHAMPTON ROYAL HORTICULTURAL SOCIETY.

THE Chrysanthemum and Fruit Show of this society was held on the 31st ult. and 1st inst., and was in every way an exhibition of which any society might be proud. The entries in all the leading classes were both numerous and of the highest order of merit, 220 vases, besides the orthodox boards, were used for the blooms.

For the Victorian Challenge Trophy there were eight competitors, Mr. Hall of Metchet Court Gardens, Romsey, once more securing the coveted prize with thirty-six really grand blooms. Mr. B. Hollis, Embley Park Gardens, Romsey, and Mr. F. Bible were a very close second and third.

For six white Japanese blooms Mr. Hollis was first; second, Mr. Daws, Rosecroft, Hambledon; third, Mr. F. Chandler (amateur).

For six of any other colour, Mr. G. Ellwood, Swanmore Park, won first prize; second, Mr. Stevenson, Merley House, Wimborne; third, Mr. B. Hollis. Five others competed.

The class for eighteen blooms, restricted to those not competing for the challenge trophy, brought out only five competitors, Mr. H. Peace of Abridge Dunes securing the first prize; second, Mr. F. Chandler; third, Mr. A. J. Marsh.

Incurved sorts were represented by three entries in the vase class, but included some grand blooms, Mr. J. Hughes, Twyford Lodge, Winchester, being first; second, Mr. F. Bible; third, Mr. A. J. Marsh.

A class much admired was that of vases of single varieties, especially those shown by Mr. Ellwood, who was easily first.

For twelve distinct Japanese on boards, Mr. Bible was first, Mr. Stevenson being second, and Mr. Pearce third.

For twenty-four Japanese on boards, eight competed, Mr. G. Hall being first with a splendid lot, though Mr. F. Bible was little behind.

Incurved Japanese on boards made a poor show, and will probably be dropped out of the schedule next year, but no fault could be found with Mr. Bible's first prize lot. Mr. Bible also secured first prize for twelve incurved. Single-handed gardeners, amateurs, and cottagers all staged most creditable blooms in this division.

Chrysanthemum plants, if not numerous, were all good, Mr. C. Hosey of Elmfield, Soton, again winning. Miscellaneous groups were not so strong as usual, although the one shown by Mr. Willis of the Winchester Road Nurseries was excellent.

FRUIT AND VEGETABLES.

The fruit and vegetable classes were very strong. For three bunches of Grapes Mr. J. W. Fleming was first. For two bunches of Black Alicante, Mr. Ellwood, The Gardens, Swanmore, won. For two bunches any other black Mr. Ellwood was again first. For two bunches of white Grapes Mr. J. W. Fleming was first in a strong class.

In the Apple classes, for which there was an immense entry, W. H. Myers, Esq., the Duke of Hamilton, Major Chichester, and Sir Samuel Montagu, Bart., were the most successful.

In the vegetable classes the quality was splendid. Mr. G. Ellwood was first of the thirteen competitors in his class, Mr. Bible being equally to the front in the other open class. Cottagers exhibits were numerous and most meritorious.

We regret to learn that the very unfavourable weather will probably entail a heavy loss to this enterprising society. The arrangement of the show was, as usual, carried out by Mr. Fudge, the secretary, and gave general satisfaction.

LIVERPOOL HORTICULTURAL ASSOCIATION.

THE first of the winter lectures of the present session was given on the 4th inst. at the Common Hall, Liverpool, a new meeting-place, which proved in every respect most desirable. The chair was occupied by Mr. T. Foster, chairman of committee, who was supported by a larger number of members than usual. The lecturer, Mr. E. F. Hazleton, gardener to the Right Hon. Earl of Derby, K.G., Knowsley, selected the interesting and important subject of "Ornamental Flowering Trees and Shrubs." The paper dealt with those plants that succeed in chalky soils, those that failed in such composts, those that prefer peat or loam, &c. The best positions for each were mentioned, hints as to planting, culture, and pruning, and a large selection of sorts were given. A good discussion followed, in which Messrs. Sherry, Waterman, Stoney, Mercer, Rooking, Haines, Ewbank, Devanney, and others took part. A cordial vote of thanks to Mr. Hazleton for his admirable address, and to Mr. Foster for presiding, terminated the proceedings.

Winter lectures to be given at the Common Hall, 3, Hackins Hey, off Dale Street: December 2.—"Propagation of Plants," Mr. J. Hathaway. February 3.—"Gardens, Ancient and Modern, with Some Illustrations of Their Various Styles" (illustrated by lantern slides), Mr. N. F. Barnes. March 3.—"Injurious Scale Insects and Mealy Bugs of the British Isles" (illustrated by lantern slides), Mr. Robert Newstead, A.L.S.

DARTMOUTH CHRYSANTHEMUM SHOW.

ON the 3rd inst. a good show was held at Dartmouth, the first prize stands in the cut bloom classes being of great excellence, while pot plants, fruit, and vegetables were well shown.

Twelve Japanese: First, Mr. F. J. Godfrey; second, Lady Freake; third, Mr. J. Beer.

Twelve Japanese (incurved): First, Mr. T. B. Bolitho; second, Lady Freake; third, Colonel Toms.

Six Japanese: First, Mr. F. J. Godfrey; second, Mr. F. C. Simpson; third, Mr. J. Beer.

Six Japanese (incurved): First, Mr. F. J. Godfrey; second, Lady Freake; third, Mr. F. C. Simpson.

Six Japanese (one variety): First, Mr. F. J. Godfrey, with W. R. Church; second, Lady Freake, with Mrs. T. W. Pockett; third, Colonel Toms, with Mr. Clayton.

PLANTS.

Group of miscellaneous plants: First, Lady Freake.

Group of Chrysanthemums: First, Lady Freake.

Group of Ferns: First, Lady Freake; second, Mr. T. B. Bolitho.

Six foliage table plants: First, Lady Freake; second, Mr. T. B. Bolitho.

Six Primulas: First, Lady Freake; second, Mr. F. C. Simpson.

Specimen Chrysanthemum: First, Lady Freake; second, Mrs. Soper; third, Colonel Toms.

Fruit and vegetables were of a high order of merit. The chief prizes in both sections were taken by Mr. T. B. Bolitho, whose exhibits were superb.

WOOLTON GARDENERS' SOCIETY.

A MEETING of the above was held on the 2nd inst. at the Mechanics' Institute, Mr. C. A. Young presiding over a good attendance. The lecturer, Mr. H. Curtis, superintendent of the Victoria Park and Gardens, Wulmsley, selected for his subject a few well-known hardy border flowers. The best sorts, positions, the best soil, and general cultural hints were given in detail, with some observations on pests and how to prevent them. As usual, an excellent discussion followed, in which the chairman, Messrs. E. Todd, T. Carling, W. D. Skinner, and J. Stoney took part. A cordial vote of thanks to the lecturer for his admirable paper, and to the chairman for presiding, terminated the proceedings.

ROYAL HORTICULTURAL SOCIETY.

THERE was a small, though very bright, display on Tuesday last, the 7th inst., on the occasion of the fortnightly meeting in the hall of the Royal Horticultural Society. Chrysanthemums and Orchids were most largely represented.

ORCHID COMMITTEE.

Present: Mr. J. G. Fowler (chairman), Messrs. James O'Brien, Harry J. Veitch, W. Boxall, W. H. Young, H. A. Tracy, A. A. McBean, T. W. Bond, G. F. Moore, J. Charlesworth, Walter Cobb, Jeremiah Colman, R. G. Thwaites, Francis Wellesley, J. Douglas, Norman T. Cookson, W. A. Biney, de B. Crawshaw, H. Ballantine, F. W. Ashton, and W. H. White.

A very handsome group of Orchids was exhibited by Mr. G. G. Whitelegge, gardener to J. Bradshaw, Esq., The Grange, Southgate, N. Several fine varieties of Cattleya labiata were arranged in the centre, e.g., C. l. alba, C. l. R. I. Measures, C. l. Lowe, C. l. amesiana, C. l. G. G. Whitelegge, and others. C. l. Hercules is a very large and richly-coloured form, and a splendid plant of it was included. Lælio-Cattleya baroldiana John Bradshaw, Cattleya Mantinii, numerous varieties of Cattleya labiata and Lycaste Skinneri, Oncidium Forbesii Bradshaw, Cymbidium tracyanum, and Odontoglossum Coradinei were other plants finely shown in this group. Gold medal.

A large and beautiful group of Orchids was shown by Mr. W. P. Bound, gardener to Jeremiah Colman, Esq., Gatton Park, Reigate. It consisted largely of Cattleya labiata in several varieties, Lælia prestans varieties, hybrid Cattleyas, and Cypripediums. Cattleya bowringiana lilacina, Lælia prestans Gatton Park var., Cattleya Minerva lilacina, Lælia Perrini, Cattleya labiata Master J. Colman, C. Mantinii, and C. Portia are all beautiful flowers. The Cypripediums included the best varieties of C. insignis, C. leeanum Burtonii, C. Nelson, C. arthurianum, and others. Cymbidium wianianum and C. tracyanum were represented by splendid plants. Gold medal.

Mr. James Cypher, Cheltenham, showed a very bright group of Orchids, including some very fine Cypripediums, Cattleyas, and Dendrobiums. Cattleya Mantinii, C. Portia, C. canhamiana, C. labiata autumnalis, and C. bowringiana were well shown. The Cypripediums included many of the best insignis varieties and numerous hybrids. Odontoglossum grande, O. crispum (spotted), Vanda cærulea, and Dendrobium Phalenopsis schroderianum in several varieties were well shown. Silver Flora medal.

Messrs. Charlesworth and Co., Heaton, Bradford, had some very fine Lælio-Cattleya baroldiana richly and handsomely coloured in their group. Cattleya Mantinii, L. C. callistoglossa, Brassia Lælia purpurata-digbyana, C. Iris, Cypripedium Hitchinsiae, C. spicerianum magnificum, and Vanda cærulea were other good plants in Messrs. Charlesworth's exhibit. Silver Flora medal.

Messrs. Stanley and Co., Southgate, N., showed a group of miscellaneous Orchids that included Cattleya dowiana aurea, C. Sr. Gilles (C. Patrocinii x C. dowiana aurea), C. o'brieniana, Lælia tenebrosa, several Cypripediums, including C. insignis Sanderae and C. l. Harefield Hall, C. callisandra, Sanderae, and others. A hybrid between Dendrobium Victoria Regina and Cattleya Harrisoniae, called Dendro-Cattleya Stanleyi, was in this group. The flat petals and the form in which they were arranged seemed to suggest the Dendrobium. Sepals and petals are lined with lilac rose on a dull white ground. The lip is purple with white lobes and throat. Silver Banksian medal.

In the group from Messrs. Hugh Low and Co., Enfield, Cattleya labiata America, C. l. reedleyensis, C. l. King of Greece (all albino varieties), C. Mantinii superba, Oncidium cheiroporum, Odontoglossum Uro-Skinneri, some very good Cypripediums, and Dendrobium Phalenopsis album were conspicuous plants. Silver Banksian medal.

M. Ch. Vulysteke, Loochristi, Ghent, exhibited several very beautifully marked Odontoglossums, O. harrycrispum, O. Vulystekei, O. ardentissimum, and others. Messrs. William Bull and Sons, King's Road, Chelsea, showed a small group of Orchids, comprising Cattleya Iris President, C. l. Cordella, C. l. flammæ, Odontoglossum crispum Coronet, and several Cypripediums.

Several good Cypripediums and Cattleyas were shown by F. Wellesley, Esq., Westfield, Woking. L. C. Norba superba is a beautiful flower, with pale yellow petals and sepals, rose lip, and deep yellow throat, sweetly scented. An award of merit was given to Cattleya Petersii var., which is described below.

NEW ORCHIDS.

Odontoglossum Vulystekeae.—The parents of this remarkable hybrid are unknown. The colouring of the flower is a deep crimson, through which white streaks show clearly on sepal, petal, and lip. The tips of the sepals are white, and there is also a faint margin of white all round the flower, becoming more pronounced in the lip. Seen from the back sepals and petals are marked with a broad central band of white. The parentage is supposed to be ardentissimum upon crispum-harryanum. If this supposition is correct then it is a variety of O. venustum. Shown by M. Ch. Vulysteke, Loochristi, Ghent. First-class certificate.

Cypripedium Triumphans.—The parents of this fine hybrid are C. Salieri var. superbum and C. venustum superbum. It has a striking red lip and petals, and a large handsome dorsal sepal heavily spotted with crimson-black on a green ground, and with a rose-white margin. Shown by R. Briggs-Bury, Esq., Bank House, Accrington. First-class certificate.

Cattleya Petersii var. *Mrs. Francis Wellesley*.—This is a handsome flower, a very good form of C. Petersii with deep rose sepals and petals and rich purple lip. The throat is yellow, with a white blotch on either side of the entrance, which adds to the distinctness of the flower. Shown by F. Wellesley, Esq., Westfield, Woking. Award of merit.

Cypripedium Sanacderae.—This is a beautiful flower, the result, directly, of intercrossing C. insignis Sanderae and C. San-actæus. The petals and lower half of the dorsal sepal are pale green, the upper half of the dorsal sepal being white; the lip is greenish yellow. Exhibited by N. C. Cookson, Esq., Oakwood, Wylam-on-Tyne (gardener, Mr. Chapman). Award of merit.

Dendrobium Phalenopsis var. *Funderleyensis*.—A very beautiful dark variety of this well-known Orchid, the colouring a rich crimson-purple. Shown by Messrs. Hugh Low and Co., Enfield. Award of merit.

FRUIT AND VEGETABLE COMMITTEE.

Present: Mr. A. H. Pearson (chairman), Messrs. Joseph Cheal, S. Mortimer, W. Pope, George Kelf, H. Markham, F. Q. Lane, G. Reynolds, J. Willard, and G. Norman.

A collection of Apples was shown by Mr. George Monnt, Canterbury. There were excellent samples, splendidly coloured. Beaumant's Red Reinette, Allington Pippin, Cox's Pomona, Northern Greening, Cox's Orange Pippin, Charles Ross, and others were among the best. Silver Banksian medal.

Mr. W. Koupell, Harvey Lodge, Bonpall Park, S.W., showed a few boxes of Cox's Orange Pippin Apple, some of them splendid fruits, grown within five miles of Charing Cross. They were shown in light cheap boxes suitable for market use. Cultural commendation.

A silver Banksian medal was awarded to Mr. J. H. Ridgwell, The Gardens, Histon, Cambs., for a collection of vegetables, the produce of Sutton's seeds. Cauliflower Autumn Mammoth, New Red Intermediate Carrot, Dwarf Gem Brussels Sprouts, and Ailsa Craig Onions were well represented, and the exhibit was tastefully displayed.

A cultural commendation was given to some fine fruits of Uvedale's St. Germain Pear gathered from the famous old tree at Gatton Park, the residence of Jeremiah Colman, Esq.

Messrs. Hugh Low and Co., Enfield, exhibited dishes of splendid fruits of Apples Charles Ross, Gabala, Norfolk Beauty, Allington Pippin, and King Edward VII.

Mr. E. W. Green, Wisbech, was awarded a silver Banksian medal for a collection of seed Potatoes, that included many of the best varieties. Village Blacksmith, with rough brown skin, is one of the most distinct, though hardly the most attractive.

FLORAL COMMITTEE.

Present: Mr. H. B. May (chairman), Messrs. C. T. Druey, James Walker, George Nicholson, G. Reuthe, R. W. Wallace, R. Hooper Pearson, James Hudson, C. R. Fielder, J. F. McLeod, Charles E. Shea, Edward Mawley, Charles Dixon, E. T. Cook, Charles Jeffries, Charles E. Pearson, William Cuthbertson, W. P. Thomson, E. H. Jenkins, and W. J. James.

Mr. H. B. May, Dyson's Lane Nurseries, Upper Edmonton, contributed a very interesting table of hybrid Veronicas, Bonvardias, double zonal Pelargoniums, and Ferns in variety. The hybrid Veronicas were charming and in well-grown examples. The Heliotrope Mme. de Bussey is a finely-coloured variety and very fragrant. Silver-gilt Banksian medal.

Messrs. James Veitch and Sons, Limited, Chelsea, had a good table of the winter-flowering Begonias, such as E. Success, a sturdy crimson-scarlet kind; B. Julius, semi-double pink; E. Agatha, a dainty and compact kind; and B. Mrs. Heal. Begonia Ideala, a lovely rose-scarlet, is a delightful pot plant full of blossom and exceptionally bright and good.

Mr. W. Wells, Merstham and Redhill, showed some excellent Chrysanthemums, and of these we make special note of Glitter, a glorious yellow, with perfect stem and still more perfect peduncle. Of single-flowered kinds we take Gladys Hemsley, pink; Mary Richardson, terracotta; Merstham, white, very good; Reine des Roses, and Miss Irene Cragg, these last obtaining the award of merit.

Mr. S. Mortimer, Farnham, had a small group of three Carnations as Enchantress, Adonis, scarlet; Norway, white; Nelson Fisher, and Fiancée. Alpine Glow is a good shade of pink.

Mr. W. Seward, Hanwell, showed Chrysanthemum Frank Treastin, a good bronze and gold incurved Japanese; and Mr. Godfrey showed plants of decorative kinds that were hardly at their best.

From the Duke of Fife, East Sheen, came a pretty group of Begonias of the Lorraine type, with single Chrysanthemums, Primula obconica, and Palms, with Panicum as a margin. Bronze Flora medal.

The exhibit of Chrysanthemums from Mr. Norman Davis, Framfield, was a splendid display. F. S. Vallis, yellow; Mlle. Anna Debone, white; George Kitchener, crimson; Florence Penford, bronzy buff and pale orange suffused; Mrs. Chas. Davis, gold; Marshal Oyama, light chestnut; and Mlle. Paolo Radaelli, pink blush, were among the best. These were arranged a dozen or more in each vase with coloured Vine leaves and Crotons, and gave a splendid result. Silver-gilt Flora medal.

Single and decorative Chrysanthemums were largely shown by Messrs. Cannell and Sons, Swanley, in which much variety was noticeable. Salvia Pitcheri and S. Glory of Stuttgart (a rich scarlet of the splendens type), with S. s. alba, were also staged in small pot plants. The zonal Pelargoniums from this firm were very fine, especially the novelties of the present year. Silver Banksian medal.

A capital group of Pelargonium Mrs. Beck, scarlet, was shown by Mr. J. C. Beck, Henley-on-Thames. The colour is very rich and intense, the plants well grown and well flowered.

A pretty group of Nerines came from J. T. Bennett-Pé, Esq., Cheshunt. There were a dozen well-flowered examples, of which Novelty, Ada Bryson, and atro-rubens were the best probably.

P. Purnell, Esq., Streatham, showed Celosias, Primula obconica, Begonias, and other greenhouse plants in variety. Bronze Flora medal.

Mr. G. Reuthe, Keston, Kent, also had a nice batch of Nerines, chiefly cross-bred kinds, together with a nice lot of N. flexuosa alba. A pretty set of Crocuses included C. Clusii, C. hermoneus, C. ochroleucus (a pretty white), C. Salzmanni (a pretty pale mauve), and C. caspicus (a really fine white, with yellow or orange base).

Mr. L. B. Russell, Richmond, again showed finely-berried plants of Aucuba vera, with Elæagnus Simmonai variegata and Hedera maderensis variegata.

Messrs. T. S. Ware, Limited, Feltham, staged an extensive collection of alpine and allied things in pans, in which a large array of Saxifrages were noted. Other hardy plants were Achillea umbellata, Parochetus communis, Gentiana acaulis, and Lithospermum rosmarinifolium (a rich blue). Silver Banksian medal.

Tree Carnations in variety, as Mrs. Lawson, Enchantress, Flamingo, and others were well shown by Messrs. Hugh Low and Co., Enfield, who had many good examples of Erica nivialis, E. gracilis, &c. Citrus sinensis was also noted in fruit, and the pleasing Lotus peliorhynchus and Chrysanthemums were also shown.

A large group of Chrysanthemums came from Mrs. Bischoffsheim, Warren House, Stanmore (Mr. Ellis, gardener), the well-grown plants being chiefly in pots. Silver-gilt Banksian medal.

Messrs. J. Peed and Son, West Norwood, S.E., also staged a group of Chrysanthemums, and in this case cut blooms as well as pot plants contributed to the display. Silver Banksian medal.

NEW PLANTS.

Chrysanthemum Reine des Roses (single).—A very pleasing variety of the Mary Anderson type, with deep rosy lilac-coloured blossoms very freely produced. From G. Ferguson, Esq., The Hollies, Weybridge (gardener, Mr. Smith). Award of merit.

Chrysanthemum Mary Richardson (single).—A larger type of blossom of a deep tone of terra-cotta red and fawn. The colour is good, and the variety should prove of great value in decoration. From Messrs. W. Wells and Co., Merstham, Surrey. Award of merit.

Chrysanthemum Miss Irene Cragg (single).—A lovely pure white of the Mary Anderson type, and which, indeed, was the seed parent. No further tribute to its merit need be added than to say that all the best attributes of the parent are preserved in the new comer. From Messrs. Cragg, Harrison, and Cragg, Heston. Award of merit.

CROYDON AND DISTRICT GARDENERS' SOCIETY.

PERHAPS to the casual observer of the subject of a lecture given under the auspices of this society on the 31st ult., one might imagine that a somewhat prejudiced opinion would be manifest in a discourse on "Should Ladies take up Gardening as a Profession?" by Mr. G. Dray, superintendent of the Recreation Grounds, Sydenham, S.E. However, when listening to the lengthy and carefully-prepared elucidation of the subject one was bound to emphasise well merited appreciation of Mr. Dray's remarks, for he treated it in a manner of "for and against" with fair and reasonable argument. The discussion following was perhaps rather biased from the members' point of view, yet ample food for reflection was carried away, and the lecturer, in acknowledging the members' hearty thanks for his remarks, hoped what he had said would prove profitable to many. Mr. M. E. Mills brought good, well-berried sprays of Physalis Franchetti.

REDHILL, REIGATE, AND DISTRICT GARDENERS' ASSOCIATION.

PROGRAMME OF MEETINGS.

NOVEMBER 14, "Some Historical Notes on Gardening," by Mr. Harrison Dick, of the *Journal of Horticulture*; November 23, "Winter and Spring-flowering Bulbs," by Mr. W. Harris of Croydon; December 12, "Cultivation of Violets," by Mr. Legge, The Gardens, Pattison Court, 1806.—January 2, "Successes and Failures during 1905," led by Mr. Elsey, The Gardens, Coppice Lea; January 17, "Vines," by Mr. C. E. Salter, jun., Foxbury Gardens, Chislehurst; February 1, "The Cultivation and Forcing of Asparagus and Seakale," by Mr. J. Taylor, The Gardens, Betchingley House, Redhill; February 15, "Orchids," by Mr. W. H. White, The Gardens, Burford; March 1, "Herbaceous Plants for Decoration and Exhibition," by Mr. H. Hemsley, Crawley; March 15, "An Alpine Garden," by Mr. Edward Lovett, F.R.H.S., illustrated by a very large collection of photographic lantern slides (lantern kindly shown by Mr. Gedge); March 29, first lecture by Mr. Plyman of Wye College, "The Manual Requirements of Garden Crops"; April 12, second lecture by Mr. Plyman of Wye College, "The Life of the Soil," illustrated with lantern slides; April 26, "Wild Gardening," by Mr. A. W. Wadds, The Gardens, Paddockhurst.

CARDIFF GARDENERS' ASSOCIATION.

THE third meeting of the season took place at the Sandringham Hotel, Cardiff, on the 31st ult., when Mr. K. Mayne presided over a large gathering of members. Mr. Harold Evans of the Hardy Plant Nurseries, Llanishen, gave an interesting lecture, entitled "Hardy Plants and Informal Gardening," which was illustrated with some splendid lantern slides. The lecture was thoroughly practical. The best thanks of the members were accorded Mr. Evans for his lecture, at the same time expressing a hope that he would again come forward at no distant date with a similar lecture. Mr. H. Farmer had offered a prize of 5s. for the best vase of single Chrysanthemums arranged for effect, which was won by Mr. Hone, The Mount, Dinas

Powis. The same competitor was awarded a first-class certificate for two plants of single Chrysanthemums (raised from seed supplied by Messrs. Sutton and Sons, Reading). Mr. C. Collier was awarded a first-class certificate for a well-grown Begonia var. Turnford Hall. Three new members were enrolled, and the next meeting, the 14th inst., to take place at the Free Library by kind permission of John Ballinger, Esq., chief librarian.

WINDSOR AND ETON CHRYSANTHEMUM SHOW.

This society held its annual show on the 3rd inst. under very favourable circumstances in the Royal Albert Institute. The entries were quite up to past years, and the general excellence of the exhibits was a marked feature of the show. The open classes were keenly contested.

LIST OF AWARDS.

Group of Chrysanthemums and foliage plants: First, Sir E. Durning-Lawrence; second, Mrs. E. B. Foster; third, Lord Grimthorpe.

Eighteen Japanese blooms, distinct, arranged with plants and foliage: First, Miss Ridge; second, Lord Grimthorpe; third, Mrs. Christie.

Twenty-four incurved blooms in eighteen varieties: First, Mrs. Christie, with an excellent lot of well-formed blooms; second, H.S.H. Prince Hatfield; third, Miss Ridge.

Six vases of blooms with Chrysanthemum foliage only, three blooms of one variety in each vase: First, H.S.H. Prince Hatfield; second, Owen Tudor, Esq.; third, L. J. Drew, Esq.

Twelve Japanese and twelve incurved blooms, distinct: A challenge cup presented by Mr. N. L. Cohen is attached to this class, which brought together some splendid stands of flowers. Miss Ridge was a good first; second, Mrs. Christie; third, J. B. Fortescue, Esq.

Six varieties of single Chrysanthemums, three sprays of each: First, Captain Farwell; second, J. B. Fortescue, Esq.; third, Mrs. E. B. Foster.

Basket or vase of twelve cut blooms: First, Miss Ridge; second, Mrs. Goodlake; third, L. J. Drew, Esq.

Twelve incurved, distinct: Lord Grimthorpe was an excellent first with a stand of even, well set up flowers; second, Owen Tudor, Esq.; third, L. J. Drew, Esq.

Twelve Japanese, distinct: Lord Grimthorpe was again to the front with splendid examples; second, Sir E. Durning-Lawrence; third, L. J. Drew, Esq.

Six incurved blooms, any one variety: Mrs. Christie was first with an excellent lot of C. H. Curtis; second, J. B. Fortescue, Esq.; third, Owen Tudor, Esq.

Six Japanese blooms, any one kind: First, Mrs. Barber, with splendid blooms of *Bessie Godfrey*; second, Miss Ridge; third, L. J. Drew, Esq.

Group of miscellaneous plants: Miss Ridge was first with a pretty arrangement of *Cattleyas*, *Oncidiums*, *Crotons*, and *Asparagus plumosus*; second, Lord Grimthorpe; third, Lady Mary Currie.

Six table plants: First, Lady Mary Currie; second, Mrs. Christie; third, Captain Farwell.

Six Begonia *Gloire de Lorraine*: First, Mrs. E. B. Foster; second, Lord Grimthorpe; third, Lady Dalton Fitzgerald.

In the amateurs' classes Mr. W. Chalk and Owen Tudor, Esq., were the leading prizewinners. Mr. Charles Turner of Slough had a tastefully-arranged group of Carnations. Messrs. Titt and Son, Windsor, made a splendid show with *Lilies*, Carnations, Violets, Chrysanthemums, and autumn foliage.

NORTH FERRIBY (YORKS) GARDENERS' SOCIETY.

The members of this society met on Wednesday, the 25th ult., for a discussion on the diseases of fruit trees. The first subject brought up was the Black Currant mite. Several members thought that overcrowding and poor soil made the bushes more subject to the mite. A case was recorded in which a nurseryman dug up all his trees affected and burnt them, then covered the ground with straw, over which he sprinkled paraffin, and then set it on fire. Since then he has never been troubled with the mite. Canker formed the next subject. One grower remarked that he lifted a lot of old trees affected with canker, cut off strong roots, and replanted on the surface in good soil, and that they now are practically free from canker and bear good crops of fruit. On the 1st inst. Mr. W. Simon, The Gardens, Glen Rock, Elloughton, read a paper on "Vine Culture." The paper, which was very brief, brought out a good discussion. Two new members were elected. A vote of thanks was accorded Mr. Simons, also Mr. F. Reid for presiding.

TORQUAY CHRYSANTHEMUM SHOW.

This show was held in the large hall of the Bath Saloons on the 2nd inst., and was a conspicuous success, the exhibits being more numerous and their quality higher than for some years past. The Gardeners' Association being in a better financial position than formerly, liberal prizes were offered in all classes, which attracted good entries.

PRIZE LIST.—CUT BLOOMS.

Thirty-six Japanese: First, Mr. W. J. Godfrey, with a fine stand, in which Mme. C. Nagelmacher, Miss Elsie Fulton, and Godfrey's King were especially good; second, Mrs. J. R. Gulson; third, Mr. S. B. Cogan.

Twenty-four Japanese: First, Mr. J. N. Whitehead; second, Mrs. Trevor Barkley; third, Colonel Cary.

Twelve Japanese: First, Mr. W. J. Godfrey. Twelve Japanese incurved: First, Mr. J. N. Whitehead; second, Colonel Cary; third, Dr. Quick.

Six Japanese: First, Colonel Toms; second, Mr. J. N. Whitehead; third, Mrs. Trevor Barkley. Six Japanese, white: First, Colonel Cary, with Miss Elsie Fulton;

second, Mr. P. P. Alexander; third, Mr. S. B. Cogan. Six Japanese, yellow: First, Mr. J. N. Whitehead, with F. S. Vallis (superb); second, Mrs. Trevor Barkley; third, Mr. S. B. Cogan. Six Japanese, any other colour: First, Colonel Cary, with W. R. Church; second, Mr. J. N. Whitehead; third, Mrs. Trevor Barkley.

Six incurved: First, Mr. J. N. Whitehead; second, Mrs. Wilson.

Four varieties, Japanese, in vases: First, Mr. J. N. Whitehead; second, Mrs. Trevor Barkley; third, Dr. Quick. Mr. J. N. Whitehead also won the silver medal of the National Chrysanthemum Society for scoring the most points in the cut bloom classes.

PLANTS.

Group of Chrysanthemums: The silver challenge cup was won by Mr. Dundee Hooper with a splendid collection, all of the blooms being worthy of the show-board; second, Captain Tottenham; third, Mr. R. H. Lee. Group of single Chrysanthemums: First, Dr. Quick.

FRUIT.

Twelve dishes of Apples: First, Mrs. J. R. Gulson; second, Mr. H. St. Maur; third, Messrs. G. H. Pearce and Sons. Twelve dishes of Pears: First, Mrs. J. R. Gulson. Several other dishes were provided for fruits, and there was strong competition in the thirteen classes allotted to vegetables.

NURSERYMEN'S EXHIBITS.

Messrs. Sutton and Sons, Reading, showed a very attractive stand containing Tomatoes of various sorts, Capsicums, Onions, Gourds, &c. The Devon Rosery, Torquay, staged a beautiful group of plants and floral designs, while from their fruit farm were shown fruits in variety. Messrs. R. Vetch and Son, Exeter, staged Chrysanthemums, fruit, *Kalanchoe flammea*, winter-flowering Begonias, *Physalis Franchetti*, rock plants, &c., as well as numerous Orchids in bloom. Messrs. W. B. Smale and Son, Torquay, exhibited Chrysanthemums and other plants. Mr. J. Heath, Kingskerswell, showed a collection of Violets; Mr. W. H. Allward, Torquay, had a large general collection of plants, including the new Fern *Nephrolepis Pierstoni*; and Messrs. J. Tomlinson and Sons, Devonport, showed a fine collection of Apples.

LEGAL POINTS.

WORKMEN'S COMPENSATION ACT (*Compensate*).

The words used are "who habitually employs one or more workmen." It seems that the employment need not necessarily be continuous, so that a person employing a gardener one day in every week would apparently be liable under the Act, and we should advise you to insure. The premium would not be much.

GUN LICENCE (*Gardener*).—No licence is required by the occupier of any lands using a gun for the sole purpose of scaring birds or of killing vermin on such lands, or by any person using a gun on behalf of such an occupier who holds a game or gun licence. Rabbits are not vermin, and the term "scaring" birds does not include killing birds. (See Lord Advocate of Scotland v. Young, 62 J. P. 199.)

RIGHTS OF COMMON (*C. T.*).—It is impossible to advise you satisfactorily in the absence of more precise information regarding the nature of the common land or village green to which you refer. Generally speaking, the public have no right of access to a common, and must confine themselves to the roads and footpaths (if any) by which it is intersected. The land belongs to the lord of the manor, subject to the rights of the commoners, whatever they may be, e.g., grazing rights or rights to cut turf. A commoner can only exercise the rights to which he is entitled according to the custom of the manor. He cannot cut roads or footpaths or lay drains or water pipes through the common without the consent of the lord and his fellow commoners. Assuming that the land is common land the lord is apparently within his rights in making the demands which you mention. Different considerations might apply if the green is an ordinary village green, which may be the property of the owners of the adjoining land subject to the rights of the public. We, however, doubt whether you would be entitled to make a footpath over such a green or to lay drains or water pipes through it. The parish council would probably object, as the effect would be to interfere with the public rights.

GAME LICENCE—RABBITS (*Rustic*).—We are sorry that you have been "startled," but we

think you will find that our statements are quite correct, and "that a game licence is required by a person shooting rabbits on the property of some person other than himself or his employer." The Act in question is the Game Licences Act, 1860. The words used are: "For a licence to be taken out by every person who shall use any dog, gun, net, or other engine for the purpose of taking or killing any game whatever, or any woodcock, snipe, quail, or landrail, or any conies, or any deer, or shall take or kill by any means whatever, or shall assist in any manner in the taking or killing by any means whatever of any game, or any woodcock, snipe, quail, or landrail, or any coney, or any deer." Coney, or cony, is the legal name for a rabbit, and was formerly the proper and ordinary name. The word "coney" is now substituted in general use by "rabbit," which was originally the name for the young only. The Bible says (see Prov. xxx., 26) "The conies are but a feeble folk, yet make they their houses in the rocks." Also (Deut. xiv., 7) "The camel, and the hare, and the coney." A rabbit-catcher was formerly termed a "conyman."

National Potato Society's show.

The National Potato Society has had the happy idea of publishing an illustrated guide to its show in the Horticultural Hall, Vincent Square, Westminster, to be held on Thursday and Friday, the 23rd and 24th inst. This gives a *résumé* of the schedule, with the judges who will officiate in the different classes, an alphabetical list of stand holders, particulars of excursion trains, notes of conference and committee meetings, dinner, hours of admission, and much other useful information. Copies may be had post free from the hon. secretary, Mr. Walter P. Wright, Postling, Hythe, Kent.

Mr. Ridgewell's new vegetable.

Much interest was centred in the above vegetable at the meeting of the Royal Horticultural Society on the 24th ult. It is a cross made by Mr. Ridgewell of The Gardens, near Histon, Cambridge, between his now popular Cambridge Champion Brussels Sprout and the well-known Winningstadt Cabbage. The stems are clothed with large, very firm buttons, while the head much resembles a true Winningstadt Cabbage, being very firm and of a pleasing green colour. When cut open the small Sprouts were visible right to the apex. This should prove invaluable for small growers and market gardeners, as I believe it is destined to take a great place among our green winter vegetables. Mr. Ridgewell is to be congratulated on his success.—E. BECKETT, *Aldenham House Gardens*.

TRADE NOTE.

NOVELTIES IN FLOWERS.

The special catalogue issued by Mr. F. C. Heinemann, Erfurt, Germany, contains particulars of many new and especially interesting plants. Among them are the new hybrid Tobacco plants in various colours, *Calliopsis bicolor nana Golden Ray*, *Cineraria radiata hybrida* (which is said to have a far more elegant and refined flower than *C. stellata*), some fine Pansies, a large-flowering variety of *Phlox Drummondii*, Begonias, Pinks, annual Chrysanthemums, and many others. The new Tobacco plants are hybrids of *Nicotiana glauca*, and Mr. Heinemann gives the following description of them: "These new hybrids have large flowers, varying in many brilliant shades of colour. Like the old *N. glauca* they are sweetly fragrant, and are of the same robust growth and floriferousness. Planted in large groups they are striking by their remarkably beautiful appearance." One of the most valuable introductions of this season.

GARDENING APPOINTMENT.

MR. JOHN SMITH, late of Wynyard Park Gardens, Stockton-on-Tees, has been appointed and taken over the duties of head gardener and forester to the Most Honourable the Marquess of Londonderry, K.G., Mount Stewart, Newtownards, County Down, Ireland.

*. The Yearly Subscription to THE GARDEN is: Inland, 6s. 6d.; Foreign, 8s. 9d.

THE GARDEN.

No. 1774.—VOL. LXVIII.

NOVEMBER 18, 1905.

WINTER-FLowering CARNATIONS.

PROPOSED EXHIBITION.

THESE seems to be no good reason why an exhibition of winter-flowering Carnations, as recently suggested in our columns, should not be held; in fact, there are several points to be urged in favour of such a proposal. There are now so many beautiful varieties of winter-flowering Carnations, most of them introduced from America, that an exhibition of them could hardly be otherwise than very attractive, and would probably gain the support of the public, a view of the matter that must be taken seriously into account.

Such a show would be a complete change and a welcome relief from the innumerable Chrysanthemum shows that are held during the autumn months, and there is sufficient brilliancy and variety of colouring among the present-day varieties to guarantee a charming display; the way in which they lend themselves to vase decoration, by reason of their long strong stems, marks them as perfect flowers for exhibition. At the winter shows there are no exhibits more admired than those of winter-flowering Carnations boldly arranged in large vases. Doubtless other ways of displaying the flowers would suggest themselves to the committee, if such an exhibition were held, without having recourse to the hideous method of placing mutilated blooms, singly, upon boards.

Much good work might be accomplished, for instance, in the direction of encouraging fragrance in these flowers, a quality which many of them lack, and discouraging varieties with split calyces or weak stems, &c. Encouragement, too, should be given to British varieties, for all the best winter-flowering Carnations are of American introduction; the old English sorts, such as Winter Cheer, Miss Joliffe, and others seem almost to have fallen out of cultivation. We are glad to see that English growers are turning their attention to raising winter-flowering Carnations by intercrossing the large, richly coloured, fringed flower of the American type with the border Carnation. We recently saw a collection of flowers cut from seedling plants obtained in this way, and there were some beautiful sorts among them. There was

greater variety of colour, fancies as well as selfs being represented, fragrance was more pronounced, and they were excellent for winter flowering. In fact, while retaining the good qualities of the beautiful American varieties, they had the additional charms of a more powerful fragrance and greater variety of colour.

As was pointed out in a recent issue of THE GARDEN by Mr. Mathias, the winter-flowering Carnation has now become of the greatest importance, and its value for decoration at this time of the year is second to none. An exhibition that would serve to bring these flowers prominently before the public, stimulate all efforts directed towards their improvement, and at the same time encourage their exposition in a proper manner, is worthy of wide support.

RIVIERA NOTES.

GEORGES SCHWARTZ ROSE.—Much rain has fallen lately, and the temperature is lower than usual for October-November. It is, therefore, the more remarkable that the most beautiful of all apricot-yellow Roses (Georges Schwartz) is flowering grandly where it has been budded on the *R. indica* major stock. In my own garden, where this Rose is on Briar stock, the growth is weak, and the foliage is apt to drop after heavy winter rain. Those I have seen on *R. indica* major stock are as vigorous as any Safrano or Marie van Houtte, the typical winter Roses, and my admiration for this superb golden Rose is greatly increased. Perhaps *R. indica* major would be useful as a stock for pot Roses in England, where it has long been proved unreliable for border Roses. It is certainly well worth a trial by those who admire a really golden Rose that is very free-blooming in autumn and early winter, as Georges Schwartz on Briar stock is admittedly a poor grower and apt to cast its foliage.

BOUGAINVILLEA SANDERIANA is very full of flower just now, and is so much richer in colour and more persistent in bloom than the autumn-flowering type *B. glabra*. What a fine contrast it would make if grown in big pots in England and brought into flower with Chrysanthemums! We are too apt to think of these free-growing climbers as only useful for growing trained near the glass, whereas their true place is to break the level display of the ordinary run of pot plants in cases where such things do not succeed out of doors.

CARNATIONS.—The season has not been propitious for Carnations, excessive heat in July and premature rains in August, followed

by an early drop in temperature, with drought in September, have caused many failures. There is time yet for a partial recovery, but I cannot think the winter crop of this useful and favourite flower can be up to average; indeed, as a whole, none of the winter flowers look really well unless it be the Stocks and Roses.

Here, as elsewhere, there are decided differences of opinion as to the value of

NICOTIANA SANDERAE.—A second season will determine its position in any case; but, as a matter of treatment and colouring, I have never seen it to such advantage as at the bottom of a wall covered with Heliotrope, the contrast of its rosy crimson blooms with the grey of the Heliotrope for the first time impressed me with its real beauty. If it stands the winter as well as Heliotrope, it will be a plant of great use here.

VERBENAS are good this autumn from August-sown plants, the cool season suiting them better than usual. There is a distinct revival of interest in them, and I hope they may continue in bloom for some considerable time.

Nice.

EDWARD H. WOODALL.

RECENT PLANT PORTRAITS.

THE November number of the *Botanical Magazine* contains portraits of

Streptocarpus grandis.—Native of Zululand. This is a very handsome species, making a single leaf of even larger dimensions than that of the better known and most distinct *S. Wendlandi*. From the base of this single leaf spring many tall branching flower-stems bearing numerous pendulous tubular flowers of a pale bluish colour with purple throat.

Primula tangutica.—Native of China. This is a curious but not very beautiful Primrose. It is chiefly remarkable for the uncommon colour of its rather small narrow-petalled star-shaped flowers, which are of a dark brownish purple. They have, however, the advantage of being sweet scented. It is most nearly allied to *P. Maximowiczii*, and was sent to Messrs. Veitch by their collector, Mr. E. H. Wilson.

Lissochilus Ugandae.—Native of Uganda. This is a large-flowered and handsome species, producing tall spikes of large pale yellow flowers, the three upper petals of which are greenish with reddish brown tips.

Erica australis.—Native of South-West Europe and North-West Africa. This is an extremely pretty and free-blooming Heath, with pale rosy small tubular flowers in bunches with deeper centres. It was introduced into cultivation so far back as 1769, and is described by Aiton as the Spanish Heath, but is, unfortunately, not perfectly hardy, which makes it still rare in gardens.

Asparagus madagascariensis.—Native of Madagascar. This species is chiefly remarkable for its bright and showy scarlet trifid fruits, the flowers being quite inconspicuous. These fruits, which

are produced singly at the ends of the branchlets, somewhat resemble in form those of the common Spindlewood or *Euonymus europæus*. This species came to Kew from the Paris Jardin des Plantes under the name of *A. ruscifolius*. It requires for its successful culture the temperature of a tropical house.

The November number of *Revue de l'Horticulture Belge* contains a fine double plate of an Orchid

Renanthera matutina.—This is a very bright and showy species with arching racemes of deep rose-coloured flowers. It was figured by the late Dr. Lindley in "Edwards' Botanical Register," Vol. 29, in 1843; but no one looking at these two plates would say they were meant to represent the same plant. It is to be hoped that the Belgian portrait is most true.

W. E. GUMBLETON.

ROYAL HORTICULTURAL SOCIETY'S EXAMINATIONS.

GENERAL EXAMINATION IN HORTICULTURE.

The society's annual examination in the principles and practice of horticulture will be held on Wednesday, March 28, 1906. The examination will be held simultaneously in as many different centres in Great Britain and Ireland as circumstances may demand. The society is willing to hold an examination wherever a magistrate, clergyman, schoolmaster, or other responsible person accustomed to examinations will consent to supervise one on the society's behalf. A copy of the syllabus may be obtained by sending a stamped and directed envelope to the society's offices. Intending candidates should send in their names not later than March 1. A scholarship of £25 a year for two years is offered by the Worshipful Company of Gardeners in connexion with this examination. Copies of the questions set at the examinations 1893–1905 may also be obtained from the society's offices, Vincent Square, Westminster; S.W., price 1s. 9d., or 10s. a dozen.

School Teachers' Examination.—The society will hold an examination in cottage and allotment gardening on Wednesday, April 11, 1906. This examination is intended for, and will be confined to, elementary and technical school teachers. It has been undertaken in view of the increasing demand in country districts that the schoolmaster shall be competent to teach the elements of cottage gardening and the existing absence of any test whatever of such competence. The society's certificate will be issued after the examination to all who shall in the judgment of the council have shown sufficient acquaintance with a knowledge of the subject to warrant their teaching it to their scholars. Teachers and assistants desiring to sit for the examination should apply at once for a copy of the syllabus to the secretary, Royal Horticultural Society, Vincent Square, Westminster, S.W. A stamp should be sent to cover postage. The general conduct of this examination will be on similar lines to that of the more general examination.

Public Parks Examination.—This examination is specially intended for gardeners employed in public parks and gardens belonging to County Councils, City Corporations, and similar bodies, and will be held on Thursday, January 11, 1906, in the Royal Horticultural Society's Hall, Vincent Square, Westminster, S.W. The examination, which will commence at 10 a.m., will be partly written, partly *vis à voce*, and will occupy three hours for the written portion, and about twenty minutes each candidate *vis à voce*. A syllabus, with entry form attached, can be obtained on application to the secretary, Royal Horticultural Society, Vincent Square, Westminster, to whom intending candidates should send in their names as soon as possible. No entry can be accepted after December 31, 1905.

PRIZES FOR GARDENERS. NOVEMBER.

FLOWERS FOR THE GREENHOUSE.

A First Prize of FOUR GUINEAS,

A Second Prize of TWO GUINEAS,

A Third Prize of ONE GUINEA,

And a Fourth Prize of HALF-A-GUINEA

will be awarded to the best answers to the following questions:

I.—Name twenty bulbous plants that will flower in a cold (unheated) greenhouse from January 1 until the end of March. Give a short account of the culture they require.

II.—Mention twenty plants (not bulbous) that would flower in a cold (unheated) greenhouse during early spring (until the end of April). Give a few concise directions as to their culture.

III.—To keep a greenhouse bright from September to March (average temperature 50° to 55° Fahrenheit), which twelve kinds of plants would you grow? Give just the important points in connexion with the culture of each.

IV.—Which do you consider to be the twelve best greenhouse climbers (average winter temperature of the house 50° to 55°), free and continuous flowering to be the chief consideration.

V.—Give a selection of berried plants suitable for the greenhouse (temperature as above), with very short cultural notes.

VI.—Give the best six Roses for culture in a greenhouse (temperature as above). State how they should be pruned.

Will all who send in answers kindly read the following rules carefully. Answers to the above questions must be addressed to "The Editor of THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C." The envelopes must be marked "Competition." If this rule is disregarded by competitors, their papers will be disqualified. November 30 is the latest date for sending in answers. Both amateur and professional gardeners may compete. The name and address of the competitor must be written upon the MS, and not upon a separate piece of paper. The Editor cannot undertake to return the MSS. of unsuccessful competitors.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

November 21.—Royal Horticultural Society's Meeting. Paper on "Hollies," by Mr. E. T. Cook. Leeds Paxton Society's Chrysanthemum Show (two days).

November 23.—National Potato Society's Show (two days).

November 24.—Darlington Horticultural Society's Fruit and Chrysanthemum Show.

November 28.—Annual dinner of the National Chrysanthemum Society.

Yellow border Carnations.—My enquiry for a good yellow border Carnation in THE GARDEN for August 26 brought replies from all parts of the United Kingdom. Miss Audrey Campbell was easily head of the poll, and the general consensus of opinion was that the newer *Daffodil* is not nearly so valuable in the border. Almoner and Lord Roberts came in for much praise, and other varieties which were recommended to me, and of which I have secured plants, are as follow: Cecilia, Mrs. Walter Forbes, Geo. Foster, Miss Alley, Mrs. M. V. Charrington (sent out by Messrs. Phillips and Taylor last year), Goliath, Germania, Mrs. Princeps, Lafayette, Miss Judith Harbord, and Pride of Penshurst. In addition to these I have been

fortunate enough to unearth some apparently first-rate seedlings, so that it ought not to prove difficult to find one good yellow amongst this varied collection. By the way, has any reader of THE GARDEN tried a variety named *Sundridge*? My friend Mr. William Crump of Madresfield Court Gardens tells me that it is the finest border scarlet he grows, and has sent me some plants of it to try.—ARTHUR GOODWIN.

Winter-flowering Pelargoniums.

—Just now the span house devoted to these flowers at Woodhatch, Reigate, the residence of Mrs. Haywood, is full of brilliant and beautiful colour. There are some eighty plants all in 7-inch pots and charmingly intermingled. Each plant was raised from a cutting taken from the preceding season's plants last February when cut down. The winter-flowering period is five months. Full exposure to sun and air for some three months during the summer is most essential in preparing plants for winter blooming, pinching off blossom, buds and shoot points going on during the period of growth until the beginning of September. The plants are housed about the middle of September and begin to bloom early in October. There is an impression prevailing that only certain varieties are suited for winter flowering. That some zonals are more free to bloom than others there can be no doubt. But there does not appear to be a variety, single or double, that properly prepared will not bloom well. At Woodhatch all the varieties are singles. The following are some of the best: *Snowdrop* and *Mary Beton*, white; *Mrs. Simpson*, *Beauty of Kent*, and *Lady Chesterfield*, salmon; *Lady Curzon*, *Dorothy Burroughs*, and *Gertrude Pearson*, pink shades; *E. Bidwell*, *Charles Mason*, *The Sirdar*, *Nicholas II.*, *Lord Kitchener*, *King of Crimsons*, and *Volcanic*, scarlet and crimson hues; *Rev. Harries* and *Phyllis*, rosy cerise; and *President McKinlay*, *Mr. Tudway*, and *Lord Roberts*, purplish and violet shades. This list of twenty varieties it would be difficult to excel.

Chrysanthemums in Ravenscourt Park, Hammersmith.

—The display here is very attractive, and it is regrettable that such a miserable structure should be devoted to the flowers. I refer briefly to some of the best sorts recently noted, in a collection of some 112 varieties well grown by Mr. W. B. Gingell. *Beauty of Sussex*, silvery rose, paler reverse, a flower of great depth and of much refinement; *Guy Hamilton*, grand white Japanese flower of fine size; *General Hutton*, richest golden yellow, with a slight tint of red, a good exhibition flower; *Miss Mildred Ware*, grown wherever good Chrysanthemums are cherished, a flower of great beauty and fine size, the colour is that of a very bright *Lady Hanham*, cerise and gold—this last named sort is a sport from the well-known *Vivian Morel* (*Godfrey's*); *Masterpiece*, Indian red, tipped gold; of easy culture and coming good on any bud is *Edward VII.*, a large flower of a claret crimson shade; the well-known *Charles Davis*; *Ben Wells*, long gracefully drooping florets, white, with greenish shade in centre; *George Lawrence*, rich golden bronze, slightly suffused red; *Lord Alverstone*, deepest crimson, large and good; *Mafeking Hero*, a rich dark crimson self; *Marquis V. Venosta*, deep rose, silvery reverse; *Miss Nellie Pockett*, creamy white, long drooping florets; of purest white and a beautiful flower is *Miss Alice Byron*; that old but still good variety *Vivian Morel* was attractive, with its soft pink flowers; a finely formed flower is *Mrs. Greenfield*, deep golden yellow; *Mrs. Coombes*, bright rosy mauve; *Simplicity*, purest white, fine form; *Mrs. F. S. Vallis*, a very good flower of fine form, in the way of G. J. Warren, but better, colour soft citron yellow; *Mrs. G. Mileham*, colour bright rose-pink, silvery reverse; *Nellie Bean*, lovely shade of soft lavender-pink.—Quo.

A new Cyclamen.—I have before me blooms of a remarkable variety which suggests we may soon have Picotee Cyclamen. The flowers referred to are of good form, with the petals standing up well; they are slightly fringed round the margin, and have a distinct bright red edge and the usual red marking at the base, otherwise the petals are pure white. I received the blooms from Mr. Orpwood of Hillingdon, who is one of the best growers of Cyclamen for market. Mr. Orpwood has several other distinct types of these useful flowers which he has selected from the large quantities of seedlings he annually raises.—A. H.

Chrysanthemum Soleil d'Octobre.—During the last few weeks this has been very prominent in the market. It is one of the best we have, both for cut bloom and as a pot plant. Being so remarkably free, it cannot be too strongly recommended to amateurs. The colour is clear golden yellow; it is still one of the best yellows we have. We are indebted to Messrs. Prickett and Sons, nurserymen, Tottenham, for several distinct sports. It was from this firm that we first had the Bronze Soleil; now we have several other distinct sports from the same source. Terra-cotta Soleil, as its name implies, is of a brick red, and is sure to become popular. It has gained distinction from the Royal Horticultural Society and the National Chrysanthemum Society. At the Crystal Palace show Messrs. Prickett and Sons showed other distinct sports. Prickett's Soleil, which is of a peculiar shade of bronzy red, gained a first-class certificate. Incurved Soleil is another good variety. It is remarkable that all these distinct sports should emanate from one firm. It may be that similar sports have occurred elsewhere but have been overlooked. The sportive character of this variety was well illustrated by golden yellow and terra-cotta flowers both growing on the same stem.—A. H.

Daffodils at a New Zealand show.—The annual spring show of the Auckland Horticultural Society was held at the Choral Hall on September 1 and 2. The most prominent exhibit was that of Narcissi, the principal exhibitors in this class being Messrs. C. Hesketh, J. Kirker, H. A. Marriner, F.R.H.S., and A. E. Grindrod. The greatest number of exhibits was in the trumpet class of flower. A good breadth of Empress and Emperor was shown, the latter in the genial climate of New Zealand rivalling Glory of Leyden. The champion bloom in trumpets was an enormous Victoria, although run very closely by some glorious blooms of M. J. Berkeley. The winning stand of twelve varieties of trumpets, three blooms of each, was perfect, and it may be a long while before the society has such a fine exhibit. The champion bloom in the Medio-coronati was a bloom of Gwyther. In the collections of twenty varieties, three blooms of each, and fifteen varieties, three blooms of each, strong competition was evident. The valuable prize kindly offered by Messrs. Barr and Sons was, unfortunately, not competed for, as this competition is confined to amateurs and gentlemen's gardeners only; the trade growers are debarred from exhibiting, and the quantity of first-class blooms required for the exhibit is rather too much to expect from the amateur growers in Auckland working on a small scale only. Notable among the trumpets were extra fine blooms of Henry Irving, M. J. Berkeley, Sharman Crawford, Portia, Caticeivas, Victoria, Mrs. Elwes, and William Goldring. Among the Medio-coronati were Beauty, C. J. Backhouse (splendid colour), Frank Miles, Dr. Fell (excellent), Katherine Spurrell, &c. Amongst the exhibits of pot plants were some very fine Cinerarias and Cyclamens sent by Mr. W. Goldie, superintendent of parks and gardens belonging to the Auckland City Council. Anemones attain great perfection in the climate of New Zealand, and formed a pleasing feature of the show. The Rev. W. Beatty and Mr. H. Brett sent large

collections of Narcissi for exhibition only, their exhibits of Anemones, Narcissi, and Ranunculi being of a very special character. An illustration of some very fine blooms of Ranunculi were staged by Mr. J. Kirker, and amongst other exhibits was a floral display of spring flowers by Mrs. G. J. Mackay, the wife of Mr. G. J. Mackay, F.R.H.S. The bouquet of choice Daffodils, and a device formed of Alliums, were very much admired. In the class for table decorations, Miss Hazel Craig and Miss Young were allotted an equal first prize. The following were the judges: Narcissi—Rev. W. Beatty and Mr. A. McDonald; other classes—Messrs. D. Hay, G. Hunt, and F. Bennett.

A "walking Fern."—*Adiantum caudatum ciliatum* is so called on account of the production of new fronds on the ends of the



A BEAUTIFUL MAIDENHAIR FERN (*ADIANTUM CAUDATUM* VAR. *CILIATUM*).

old ones, which in their turn take root and send out others. This prolific growth goes on indefinitely, and enables the plant to cover a considerable space in a short time. As can be seen from the illustration, it is a charming plant for a hanging basket, and when well grown will continue to produce a wealth of its graceful pale green fronds, forming a specimen 3 feet or more in depth. To grow the plant well it requires the temperature of the stove or intermediate house, and if cut back to the older fronds in early spring and repotted in good loam and leaf-soil it will in a few weeks make fresh young growths. These produce a quantity of offsets, and form a fine specimen by the middle of the summer. Some of the young pieces which

have roots should be selected; if carefully potted up they will grow away readily and make good plants.—E. J. ALLARD, *Botanic Garden, Cambridge.*

Hardy Cyclamens.—These seem at home in the woodland garden, planted close to the boles of Oak trees, between the big, forking roots above ground. New soil was placed between these roots and the plants watered for a time. They soon got established, and will need no more care beyond keeping the weeds and grass down. Choose tall trees where the branches are not too low down, as they require light and a little sun. It is surprising how strong they grow and with what freedom they flower planted in this way. A few planted at the foot of a tree make a pretty bit of colour late in autumn and again in the early spring with the spring-flowering varieties. I have also seen them doing well at the foot of Elm trees, but not under Beech.—W. J. T., *Sandhurst Lodge.*

THE CLASSIFICATION OF THE NARCISSUS.

(Continued from page 304.)

GROUP II. Intermediate Narcissi, including all hybrids of intermediate character between true Daffodils and true Narcissi, and also the two intermediate species (*Triandrus*

- and *Juncifolius*).
- (1) *Triandrus* (one-to-five-flowered species, with sharply reflexed perianth segments). Example, *N. Triandrus albus* (Angel's Tears).
 - (2) *Juncifolius* (a very small Rush-leaved species with widely expanded crown).
 - (3) *Incomparabilis* (between *Ajax* and *Poeticus*), including (i.) Giant (or Large-crowned) *Incomparabilis*; (ii.) *Incomparabilis* (answering to the *Incomparabilis* of the present system). Examples, *Cynosure*, *Autocrat*; (iii.) Double *Incomparabilis*. Example, *Golden Phoenix*.
 - (4) *Barrii* and *Burbidgei* (the shorter-crowned forms of *Incomparabilis*). Both of these forms are obtained from *Ajax* × *poeticus*, though *Burbidgei* forms are generally from *Incomparabilis* × *Poeticus*. Examples, *Barrii*, *Conspicuous*, *Bullfinch*; *Burbidgei*, *Vanessa*, *Baroness Heath*, *Falstaff*, *John Bain*.
 - (5) *Engleheartii*, flat crown, disc-like forms between *Incomparabilis* and *Poeticus*. Example, *Egret*.
 - (6) *Leedsii*, between white *Ajax* and *poeticus*, including (i.) Giant (or Large-crowned) *Leedsii*. Example, *Janet Image*; (ii.) *Leedsii*, answering to the *Leedsii* of the present system. Example, *Minnie Hume*. N.B.—*Montanus* (syn. *poculiformis*) might be included under this section.
 - (7) *Macleaii* and *Nelsoni*, probably bicolor *Ajax* × *Poeticus*; possibly *Ajax* × *Tazetta*; unless it should be thought better to include these forms under *Incomparabilis*.
 - (8) *Bernardi*, hybrids of *Ajax* abscissus and *variiformis* × *Poeticus*. Example, *H. E. Buxton*.
 - (9) *Odorus*, hybrids of *Ajax* × *Jonquilla*, well known under the name of *Campernelle Jonquils*.
 - (10) *Johnstoni*, hybrids of *Ajax* × *Triandrus*. Examples, *Queen of Spain*, *Snowdrop*.
 - (11) *Willmottii*, hybrids of *Leedsii* × *Triandrus*. Example, *Mrs. Berkeley*.
 - (12) *Tridynus*, hybrids between *Ajax* and *Tazetta*, in which the latter is the seed parent. Example, *S. A. de Graaff*.

(13) Bunch-flowered forms between *Incomparabilis* and *Tazetta*. Example, *Schizanthus Orientalis*.

(14) All intermediate forms between the true *Daffodils* and true *Narcissi*, which are not sufficiently marked in character to be included in any of the above sections.

Group III. True *Narcissi*, will (now that the hybrid forms *Burbidgei* and *Schizanthus Orientalis* have been removed into the second group) be identical with Mr. Baker's *Parvicoronati* division.

It would be necessary to add a new section to include the new seedlings between *Poeticus* and *Tazetta* recently introduced by Mr. Barr. To this the title of *Poetico-Tazetta* might be given, rather than such a barbarous-sounding name as *Poetaz*, which is found in some catalogues. We shall then have

GROUP III. True *Narcissi*, with characteristics as stated above.

(1) *Poeticus* (the Pheasant's Eye species). Example, *P. ornatus*.

(2) *Jonquilla*, a Rush-leaved species bearing several golden flowers on a stalk.

(3) *Tazetta* (syn. *Polyanthus Narcissus*), the many-flowered species, widely distributed from the Canary Isles and Portugal on the West to China and Japan on the East. Examples, *Grand Monarque*, *Paper White*.

(4) The three autumn-flowering species: (i.) *Viridiflorus*, (ii.) *Serotinus*, (iii.) *Elegans*.

(5) *Biflorus*, natural hybrid between *Poeticus* and *Tazetta*; generally two-flowered, and without any red in the saucer-shaped crown.

(6) *Intermedius*, hybrid between *Tazetta* and *Jonquilla*. Example, *Sunset*.

(7) *Gracilis*, including *Tenuior*, a very late-flowering hybrid, *Jonquilla* × *Tazetta*.

(8) *Broussonettii*, unique species, in which the corona is reduced to a mere rim.

(9) *Poetico-Tazetta*, hybrid between *Poeticus* and *Tazetta*. Example, *Elvira*.

It will be noticed that the alterations here suggested are not at all revolutionary, the disturbance in the main groups being small, and the new sections only just sufficient to include the newer types of seedlings. This is an important point when we remember how widely the present classification is in use. All the changes which are made follow Nature's leading, and the whole plan is elastic, for new sections may easily be added to include new types of flowers as they see the light. S. EUGENE BOURNE.

THE FLOWER GARDEN.

AUTUMN CROCUSES.

AUTUMN Crocuses are invaluable flowers for giving colour at a season of the year when the majority of plants have passed out of bloom. Some of them are well adapted for naturalising in grass, like *C. speciosus*, a mass of which in flower makes an effective picture towards the end of September or beginning of October, with their delicately-veined purple-blue flowers, set off by the orange-coloured anthers. When grown in a border it is advantageous to have a carpeting of some low-growing plant which does not grow too thick, and will set off the flowers which appear before the leaves. The whole *Crocus* family is comprised of a number of kinds which will give a succession of bloom from August, when those of the autumn section start flowering through the winter and spring. Those that bloom in early autumn are the most useful, as at that time the weather is generally more favourable for their well-being, while

those that flower later on in the autumn and winter have frost and rain to contend with. To successfully grow these it is necessary to plant them on a warm sunny border, or cover with a light while in flower. In making a selection perhaps the four best would be *C. speciosus*, *C. pulchellus*, *C. longiflorus*, and *C. medius*. Besides these are many others of great beauty; a few of the best are described below in alphabetical order, and not in order of merit:

C. asturicus.—This is a very showy, free-flowering species from the Asturian Mountains, with flowers varying in colour from dark purple to lilac and pale mauve. A white variety is figured in Maw's monograph of the genus, but this is apparently not now in cultivation. Somewhat short in stature, it is of sturdy habit, and is not so easily broken down by rain as some of the others.

C. cancellatus.—A species with a somewhat wide natural distribution from the Ionian Isles to Northern Persia. With such a range it follows that there are several varieties, that of the type having white flowers with a purple base. The variety *cilicicus*, from Asia Minor, has lilac flowers veined with purple, while the variety *Mazziaricus* has white flowers with an orange throat. All the forms flower freely when planted in a warm sunny place.

C. caspius.—One of the finest white-flowered autumn *Crocus*, and closely allied to the better known *C. Boryi*. It has been recently introduced from the Caspian region, and flowers in October and November, often keeping on till February. The variety *lilacinus* has the outer segments suffused with lilac.

C. hadriaticus.—A native of the Ionian Isles, with pure white flowers very freely produced. There is also the variety *chrysobelonicus*, which has a yellow throat pencilled at the base with reddish lines, and another variety with a richly-coloured violet base. This species increases freely in any light soil or position.

C. iridiflorus.—This is so named from the resemblance of the flower to that of an Iris, and is a native of Banat and Transylvania. The large outer segments are rich purple, while the small inner ones are pale lilac. This species grows best in rather shady places, as it is generally found amongst low bushes. A group is very charming in September and October.

C. longiflorus.—A charming free-flowering plant from Southern Italy, with soft rose-coloured flowers. This is one of the best of the autumn-flowering species, and should find a place in every garden. It comes into flower later than *C. speciosus*, and lasts well on into November.

C. marathoneus (oliveus).—A large-flowered and beautiful form of *C. Boryi*, and considered by some the finest white-flowered autumn *Crocus*.

C. medius.—One of the handsomest and most effective species, with rich violet-coloured flowers of large size, veined purple at the base, and set off by the much-branched, glowing, orange-red stigmas. It is found in Northern Italy, but, unfortunately, it does not increase so readily as some of the other *Crocuses*, therefore it is not so common as it deserves to be. There is a pale rosy lilac form also in cultivation.

C. ochroleucus is a creamy white-flowered species from the Lebanon, with a bright orange base.

C. pulchellus.—A very free-flowering *Crocus*, found wild abundantly in the heathy thickets bordering the Bosphorus and other parts of Eastern Europe. It has lavender-blue flowers, the inner segments having dark purple lines. One of the earliest in flower, this species much resembles *C. zonatus* at first sight, but is without the orange zone of that kind. Seedlings from it appear freely, and soon make groups, which produce large quantities of flowers in September.

C. speciosus.—This may be considered the best for all purposes, and is admirably adapted for naturalising in the grass. It increases freely,

and a mass of this plant in flower at the beginning of September makes a very effective picture. The flowers are large, open wide during sunshine, and vary somewhat in shape and colour. In the typical forms the colour may be described as bluish violet, and the segments are prettily veined with dark purple. In a wild state this species has a wide distribution, being found in Transylvania, Asia Minor, the Caucasus, and Northern Persia among other places. *C. s. var. Aitchisoni* is a very fine variety from Persia, with larger and somewhat lighter-coloured flowers.

C. zonatus.—A beautiful little plant from the mountains of Cilicia, with rosy lilac flowers, having a bright orange zone near the base of the segments. It is very free, and will succeed and flower abundantly in almost any situation.

While the above comprise all the best of the autumn-flowering *Crocuses*, several others are worth growing, including *C. lævigatus*, from Greece, with white or lilac flowers variously marked and feathered; *C. nudiflorus*, with rich clear purple flowers, from the Pyrenees, &c.; *C. sativus* (Saffron *Crocus*) and its many varieties, the freest of which is *var. Haussknechtii*, although the others may be made to flower freely by planting in suitable positions; *C. Sharojani*, the bright yellow-flowered species from the Caucasus, which flowers in August; and *C. Tourneforti*, a charming species from Greece, with delicate rosy lilac flowers.

The culture of the *Crocus* is very simple, as any light garden soil suits the bulbs. Their main requirements are sun and shelter from cutting winds. Shelter from rain in the form of a bell-glass, or lights for the rarer kinds would be an advantage in many places. The corms should be planted as early as possible to allow for the formation of roots before the flowers are produced, and autumn-flowering *Crocuses* should be in the ground in July. They should not be planted deeply, some growers barely covering the corms with soil, but about 2 inches below the surface is a suitable depth to plant.

W. IRVING.

OLIVE CULTURE IN CORNWALL.

THE culture of Olives in a Northern latitude like that of England is so unusual that some notes of an experiment made in Cornwall may be of interest to readers of THE GARDEN.

In the spring of 1901 several cuttings of Olives, taken above the graft (the Olive is usually grafted on the *Oleaster*, or wild Olive), were imported by me from Sir Theodore Hope's villa at San Remo in the Italian Riviera, and placed in charge of my gardener, Mr. G. Hill. These cuttings were of well-ripened wood about 2 feet long, and of these five were sufficiently advanced to be plunged out of doors in a very sheltered place during the winter of 1901-2. In the spring of 1902 they were transplanted to their permanent position, four as standards in the open, about 12 feet to 14 feet apart, and one on a high south-east wall. At the same time, six small trees, grafted on the wild stock, were obtained from Rovelli of Pallanza and planted out with the ungrafted Olives. Another variety, the *Manzanillo*, a large-fruited kind, imported from Spain, has been added this year, and has yet to go through its first winter.

Before giving the result of the experiment, it may be well to describe the gardens of St. Petroc Minor. The soil is a light and sandy loam, and a shaly rock is found everywhere at an average depth of 2 feet to 3 feet. This is, on the whole, favourable to Olive culture, the

trees needing a light, well-drained soil. St. Petroc Minor is situated three miles from the sea on the North Coast of Cornwall, near Padstow, at 150 feet above sea level; the part of the gardens where the Olives are planted is in a position exposed to the westerly gales, which are frequent during the winter months.

It has been found, however, that the Olive has but little objection to salt-laden winds. On September 10, 1903, when nearly everything in the garden was scorched by one of these salt gales from the Atlantic, the young Olive trees were quite unharmed, although a Nut hedge in the vicinity was completely blackened.

In the climate of Cornwall the Olive does not commence its growth till quite the end of May, and it continues growing until the first frosts, which begin about the end of November, though it is rare in this district to have much frost before Christmas. A maximum of 12° of frost is rarely exceeded and not often reached during the winter; a frost of this severity does not last more than a few nights, and snow does not lie long on the ground.

In connexion with this it is interesting to note what Mr. Bioletti says in an article on Olive cultivation (Report of work of the Agricultural Experiment Station of the University of California, 1898-1901): "It is dangerous to plant Olive trees in any region where the temperature often falls belows 20° Fahr. Some varieties will stand 15° Fahr., but only for a short time; and the young wood of many varieties is injured even above this temperature. At 10° Fahr. the whole tree is destroyed. In spring, after the new growth has started, much less cold than the above is harmful."

All the trees passed through the winters of 1902-3 and 1903-4 successfully, and without matting or any other protection, which in this windy neighbourhood would be difficult to apply. The branches were tipped by the frost, but not more than those of tender shrubs of the Myrtle type, and no damage was done, the trees shooting out in the late spring, the ungrafted ones vigorously. All went well until the severe frost of November last, which came suddenly at a most unfortunate time, just after a week of mild, damp weather, the thermometer registering 16° of frost for several nights in succession. Through this severe ordeal the ungrafted Olives passed unscathed; they have again made strong growth this summer, the tallest being now nearly 8 feet high, and the thickest having a head 4 feet across. The Olive trained on the wall has reached 11 feet in height, and is 5 feet across.

Two of the grafted Olives are also doing well, but the frost proved too severe for the remaining four; they made an effort to start new growth at the end of May, but the old leaves all fell off and the new ones turned yellow. One, in its expiring effort, feebly flowered (the only Olive which has yet flowered in the garden), and it is clear that these trees are doomed, though the roots are living, for fresh shoots are already coming up from above the graft to take the place of the dead wood. So far the hardiness of the ungrafted over the grafted Olive seems established, but the difference may possibly be due to the former, from cuttings struck in England, being planted out younger than those imported in tree form from Italy.

Though the Olive prefers a light soil it needs good feeding, and the ground round each tree has been regularly dug up and stable manure inserted each season. Probably a little lime would help the trees, as the Olive is said to delight in sandy or loam soils rich in lime. Thus two of the conditions for procuring fruit, as laid down by Columella in the first century of our era—"Olive-tum qui arat, rogat fructum; qui stercoret, exorat; qui coedit, cogit"—have been provided. The last, the pruning, which Columella says is to *compel* the tree to fruit, we have, for the present, left to the winter's frosts! When the branches get thick and the trees stronger, it will be time to consider that lopping process which is so mercilessly applied by the cultivators of Southern Europe. An experiment made this spring to graft on the Ash stock was, unfortunately, a failure, as grafting on some hardy stock might improve the chances of successful Olive cultivation in this country.

The Olive in its native land is subject to the depredations of many destructive insects, but, so far, the trees in Cornwall have been remarkably free from pests of any kind. Cornwall possesses one great advantage to the aspiring Olive-grower—its immunity from prolonged and severe frosts. But it has its disadvantages as well. Its climate is a somewhat rainy one, and Olives are not tolerant of excessive moisture; its sky is often overcast by the mists and sea fogs which roll across the country from the Atlantic.

As we have seen, a salt-laden atmosphere, even when it comes in the form of driving gales, is harmless to the Olive, but the comparatively small amount of strong sunshine is a very serious drawback.

Certainly much less damage would be done by the harder frosts if there were sufficient sun-power in summer to ripen the wood as thoroughly as it is ripened in Italy. The Channel Islands, or a very sheltered gorge opening towards the sea in one of our South Coast counties might afford climatic



AN OLIVE TREE IN CORNWALL.

conditions of a slightly more favourable character.

ATHELSTAN RILEY.

St. Petroc Minor, St. Issey, Cornwall.

THE FRUIT GARDEN.

APPLE STURMER PIPPIN.

SO valuable an Apple as the Sturmer Pippin should be in every garden. Its property of retaining, till a late period, its brisk flavour, both for dessert and kitchen use, and are an ample recommendation. We are indebted to Messrs. S. and J. Dillistone, of the Sturmer Nurseries, for the history of this famous Apple.

Their father, it appears, resided at the Rectory house at Sturmer about the year 1800, and observing a fine Apple, like a Ribston Pippin, hanging on a branch amongst those of an old Nonpareil he thought that the flowers might possibly have been fertilised by the bees. He gathered the fruit, planted its seeds, and one tree grew, continuing in the same spot in which he sowed it in the Rectory garden.

Previous to his death, Mr. Dillistone, having seen its superiority, raised from it many dwarf standards. By planting the dwarfs in a heavy clay, thinning and regulating the branches, and afterwards, by judicious root-pruning, his sons have, in the last three seasons, gathered, with the assistance of a 6 foot ladder only, 320 bushels of

fine fruit. There are now about sixty trees planted 9 feet apart on each side of a 4-foot walk. Some Apples are nearly free from russet, whilst it is scattered irregularly over others. The stem is short and deeply inserted; the exposed side deeply coloured with dull red, and the form of the fruit is altogether handsome. The flesh is greenish white and crisp; and to the pleasant admixture of acid with an agreeable sweetness, it owes its value as a kitchen fruit. As a dessert Apple, however, some persons may think it too sharp, a quality which others would highly esteem, for even at the present season it possesses the brisk flavour of fresh fruit gathered from the tree.

APPLE LANE'S PRINCE ALBERT.

A GREAT difficulty in fruit culture is selecting the best varieties, especially in connexion with the

of standard and bush trees, one would say it would do well under any form of training.

R. PARKER.

AN ENGLISH GARDEN.

EAST STRATTON PARK.

STRATTON, the home of the Baring family, is a good illustration of an old-time place, that, as regards its garden, has during recent years kept apace with modern ideas of open-air gardening in such a way that it may be pointed out as a rare example of a skilful combination of old and new styles in the adornment of gardens. About Stratton there is everywhere evidence of the old order of things; stately avenues, groves of Cedars, Beeches, and Limes that usually give expression to old-time places. It was in this place that Repton worked during the early years of the last century in forming these avenues and plantations, planning approach roads, diverting public roads, and the rest of those features that the early landscape gardener considered of such high importance.

With the advantage of generations of tree growth, Stratton has been a beautiful place since this has matured, but, like so many ancestral homes, it lacked that essential brightness which characterises the best features of modern gardening. The gloominess of old places where trees abound and flowers do not is unbearable to modern ideas, and Stratton, until a few years ago, was no exception to this state of

living things. It shows that where stone is kept subservient to the plants in a garden, a pleasing contrasting effect may be the result. The "tidy" gardener may object to the flowers in the paths, but the true flower-lover tolerates even beautiful weeds in the right place. Even the clipped Peacock Yews are in character with such a plot.

Apart from this garden, there is nothing formal surrounding the house at Stratton; on the contrary, the noble masses of hardy flowers, grouped with colour effect, follow the irregular contour of the sloping ground above the Rose garden. Every type of hardy plant is used with the best effect in bold masses, which in such a large place as this are a necessity, as they are seen chiefly from a distance.

The great plantations of hardy flowers intermingled with the trees have added extremely fine effects during flower time, and this extends from early spring till late autumn. The more remarkable is the result of this work carried out by Lady Northbrook, because the soil is of the thinnest, being just a layer on the chalk, and, moreover, being high, the garden is liable to suffer from drought.

The kitchen garden is typical of the large walled enclosures that one sees in old places. Being five minutes' walk from the house across the park, it has been the aim to make the garden compensate for this walk, and so it does. Part of it is taken up by noble borders of hardy plants—Pæony borders, Iris borders, Eremurus borders, and so forth, while a pergola smothered with beautiful climbers spans the main path, with mixed borders on each side. The large tree shown in the illustration is the American *Magnolia cordata*, perhaps the finest in this country. The kitchen garden amply provides for all the edible requirements for a large house, besides these features that appeal to the eye in the way of Carnation and other flower houses.

The woodland garden and the rock garden (the special interest of Lord Northbrook) are among the pleasant adjuncts of this noble garden, surrounded by one of those parks that gives character to the stately homes of England.

As one sees it all, one reflects as to what would be the thoughts of Repton and other earlier landscape gardeners could they see the brightness of gardens in these days, compared with the gloominess of gardens in their time.

W. G.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

THE BLUE CONVULVULUS OR MORNING GLORY.

(*IPOMEA RUBRO-CÆRULEA*.)

[TO THE EDITOR OF "THE GARDEN."]

SIR,—It would seem that increased interest is being taken in growing this lovely climber and its near relative, *Mina lobata*, out of doors in the summer months, and both are indeed well worth the small amount of expense and trouble necessary. I have hitherto failed ignominiously with the *Ipomæa* owing to my having planted it out too early; but this year, thanks to information received from the pages of THE GARDEN, I kept my plants in the greenhouse till the end of June, by which time they were from 2 feet to 3 feet high and showing



PAVED PATH WITH FLOWERS GROWING IN THE CREVICES.

Apple. It is an easy matter to give a list of varieties that are well known, and may be regarded as reliable croppers as well as possessing first-class quality, but those who have taken a keen interest in Apple culture during recent years would, were they called upon to form new plantations, restrict the list to those which have proved the best. We would certainly do so, and without any hesitation plant plenty of trees of the above cooking variety in bush form. We have never had to complain of the produce, as the individual fruit is of serviceable size, and good shape and colour. We have not grown it as a cordon or espalier, but judging by the freedom in which fruit spurs are produced on the branches

things; but to-day it illustrates what can be done in a short time by owners who have definite ideas of beautifying a place. Under the personal attention of Lord and Lady Northbrook, as they are both keen gardeners with not only ideas but knowledge of how to carry them out, the result is the beautiful garden to be seen now at Stratton.

The illustrations show parts of the garden, and of particular interest is the square garden recently made. It illustrates the effect of mingling stone paths and stone ornaments with broad masses of flowers, as the lifeless objects heighten the effect of the

flower-buds, before putting them out in their places. I did the same with *Mina lobata*, which I had not previously tried, and the result in both cases was highly satisfactory. My own plants did well and flowered splendidly, but they were simply miserable failures in comparison with some I gave to a gardening friend in the neighbourhood. On the south wall of his house he grew a single plant of each kind; the *Mina* was late in flowering, but came with a floriferous rush at the end, and was very handsome. *Rubro-cærulea* was glorious for months, and on October 2 there were no less than sixty-six expanded blooms on it. I do not know if this constitutes a record, but it should be hard to beat. My friend took the keenest interest in his plant, watering it most carefully and regularly snipping off the old flowers every evening. I did not take this precaution with mine, and I never had anything like the marvellous display that he had. Here, I think, is a decided tip for all growers in future—cut off the dead blooms every night, and let the new buds have every chance. *Mina lobata* lasts a prodigious time in water indoors; it is a quaint and pretty thing, and arranges well with other flowers and greenery; for this reason alone it is worth growing, apart from its lovely foliage and effective appearance when rambling over a warm wall, a sheltered trellis, or the sunny corner of a rockery.

S. G. REID.

APPLE BISMARCK.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In your lists of Apples for cooking and dessert in their seasons in THE GARDEN of the 4th inst., this excellent culinary sort is given a very limited season, viz., November to December, which certainly does not cover one-half the time this variety retains its highest quality. For some years now I have had Bismarck in good condition until mid-April, and I am much understating its keeping qualities when I say that it was in perfect condition till the end of February. Doubtless with a few more seasons' experience this fine cooking sort will find its true level, and gardeners generally will know its sterling qualities better. A few years ago I planted an equal number of trees of Lane's Prince Albert and Bismarck. Last winter I cut out several of the former, and others are destined to go the same way.

E. H. JENKINS.

THE STAG'S-HORN FERN.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In THE GARDEN of the 7th ult. (page 220) A. Hemsley says of *Platycerium biforme*: "I have only seen dried fronds of this, and I doubt if it is now in cultivation." At Kew there are two plants in the tropical fernery house No. 2. The larger has four growths, and is suspended from the roof in the centre of the house. They were sent to Kew from Penang. The



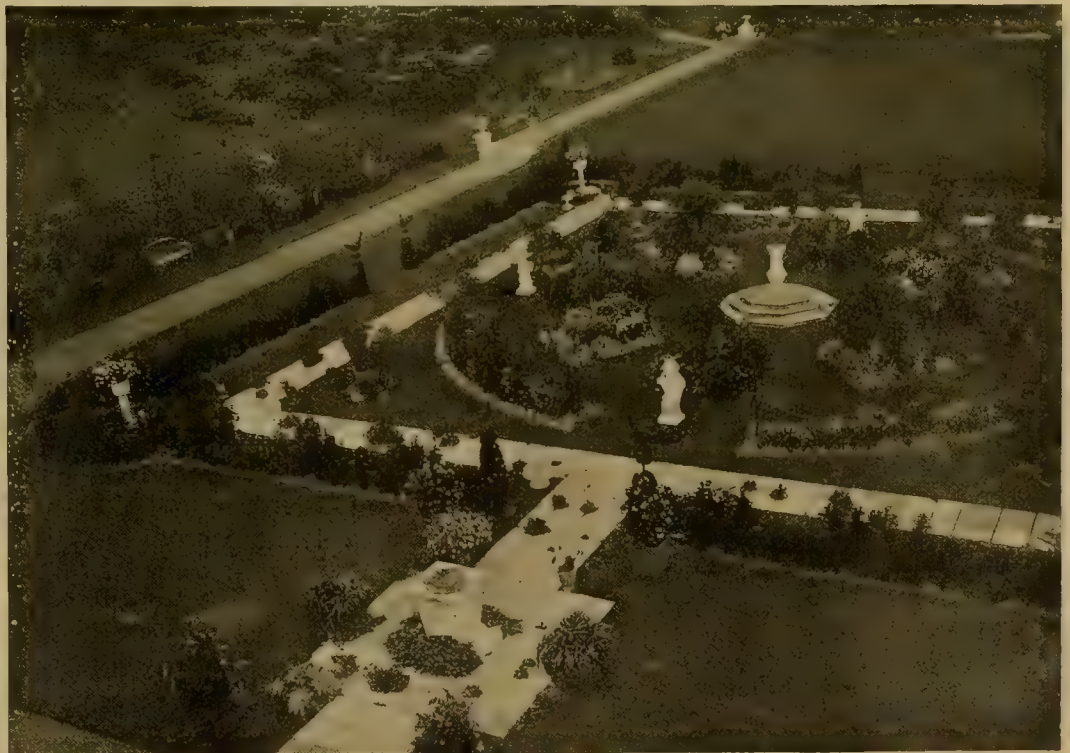
PERGOLA AND BORDERS OF HARDY FLOWERS.

largest barren frond is now 6 feet in circumference, the centre being a mass of dead and decayed matter. The longest fertile frond is 2 feet 6 inches in length.

Some four years ago this splendid specimen, unique in this country, and probably in Europe, had fertile fronds 8 feet to 10 feet in length, which were supported by wires from the roof in the same house. Unfortu-

nately, as occasionally will happen, despite the utmost care and attention, the plant gradually decayed and died. Spores from this plant were sown over and over again, but without success. The fertile fronds of *P. grande* are given as 3 feet in length. A grand specimen near by *P. biforme* has fronds exceeding 4 feet in length. *P. madagascariensis* is also in cultivation at Kew.

A. O.



FLOWER GARDEN (RECENTLY MADE) WITH PAVED PATHS, AND ENCLOSED BY YEW HEDGES.

NEW AND RARE PLANTS.

ANTIGONON LEPTOPUS.

THIS is a showy and elegant greenhouse climbing plant, producing rose-coloured flowers in terminal and axillary racemes, and in the greatest profusion. The plant is of a tuberous-rooted character, and may be dried off, as in the case of *Canarina*, and re-started into growth in spring. It was first introduced in 1870, and has been found in Mexico, Guatemala, Jamaica, &c. During the season of growth a course of treatment agreeable to the *Bougainvillea* is suited to it. It was shown by Mr. E. J. Brooks, Ecclefechan (gardener, Mr. J. Urquhart), at a meeting of the Royal Horticultural Society held on the 24th ult., and then received an award of merit.

HARDY SHRUBS UNDER GLASS.

MANY hardy flowering shrubs are forced prematurely into bloom and used for the embellishment of the greenhouse at Kew. During the very early spring the following all contributed to the splendid floral display there, which was greatly admired.

AZALEA MOLLIS.—One of the most popular of all shrubs for forcing, the readiness with which it conforms to this mode of treatment being greatly in its favour. Those at Kew were neat little bushes which were simply a mass of flowers, the colour of the different individuals varying from pale yellow to bright reddish salmon.

A. OBTUSA.—Botanically this is regarded as a variety of *Azalea indica*, but it is hardier than most of the forms of that species, while the flowers are also much smaller. In the typical kind they are bright red, and in the variety *alba* pure white. Both kinds were well represented at Kew.

RHODODENDRON PRÆCOX.—Several fair-sized bushes of this valuable hybrid *Rhododendron* made a good show, by no means the least item in its favour being the fact that little more than simple protection is necessary to have it in bloom at the time stated.

FORSYTHIA INTERMEDIA.—Though this *Forsythia* was at first very slow in becoming popular, its merits are now more generally recognised, and for forcing it is certainly a very desirable shrub. The blossoms are of a richer yellow than those of *F. viridissima*, and the habit of the plant more bush-like than the well-known *F. suspensa*.

MAGNOLIA STELLATA.—Suitable as many of the *Magnolias* are for greenhouse decoration early in the year, this species is second to none, and a well-flowered bush of it is a glorious sight. It is of a dense, twiggy habit, so unlike the rest, and the pure white semi-double flowers are borne in great profusion.

DEUTZIA GRACILIS.—Long known and universally grown for flowering under glass, this *Deutzia* still holds its own among the best of subjects for this purpose.

D. LEMOINÉ.—A valuable hybrid obtained by the intercrossing of *D. gracilis* and *D. parviflora*. It is a larger shrub than the first named, and is rapidly advancing in favour for forcing, being more fitted for this treatment than as an outdoor shrub.

SPIRÆA VAN HOUTTEI.—A hybrid *Spiræa* much resembling *S. media*, which is also known as *S. confusa*. The pure white flowers are borne in small flattened corymbs, and are so numerous that the entire bush is clothed with them.

PYRUS FLORIBUNDA.—This graceful shrub or small tree flowers freely under glass, but the expanded blossoms are paler than those

being clothed for some distance with comparatively large pure white double blossoms.

P. PERSICA MAGNIFICA.—A form of the double-flowered Peach, remarkable for the richness of its colouring, in this respect much surpassing *roseo plena*, which was also noted in bloom at the same time. H. P.

THE ROSE GARDEN.

ROSE MME. D'ARBLAY.

AMONG the Musk Roses and their hybrids there are some delightful sorts, and one of the best of them is *Mme. d'Arblay*, shown in the accompanying illustration. As these Roses are of vigorous and rapid growth, they are most useful for covering pillars or pergolas. Their flowers are produced in lavish profusion, and assume a most beautiful double flowers of a delicate flesh colour, changing to white. Other varieties in this section are *The Garland*, *moschata alba*, *himalaica*, and *Brunonii*.

PERPETUAL THALIA.

I NOTICE that this variety is referred to on

page 289 as if it were a climber. May I state that it is perfectly useless in this form, and only suitable for making a low hedge between 3 feet and 4 feet in height, certainly not more. *Perpetual Thalia* was raised by Mr. Peter Lambert of Trier, Germany (who also raised *Thalia*), by crossing a seedling from *Thalia* with the China Tea *Mme. Laurette Messimy*. It grows most readily from cuttings, and makes most shapely bushes. Outdoors it is certainly superior to *Perles des Neiges*, which was sent out by Dubreuil a few years ago.

Kidderminster. ARTHUR R. GOODWIN.

JOTTINGS ABOUT ROSES.

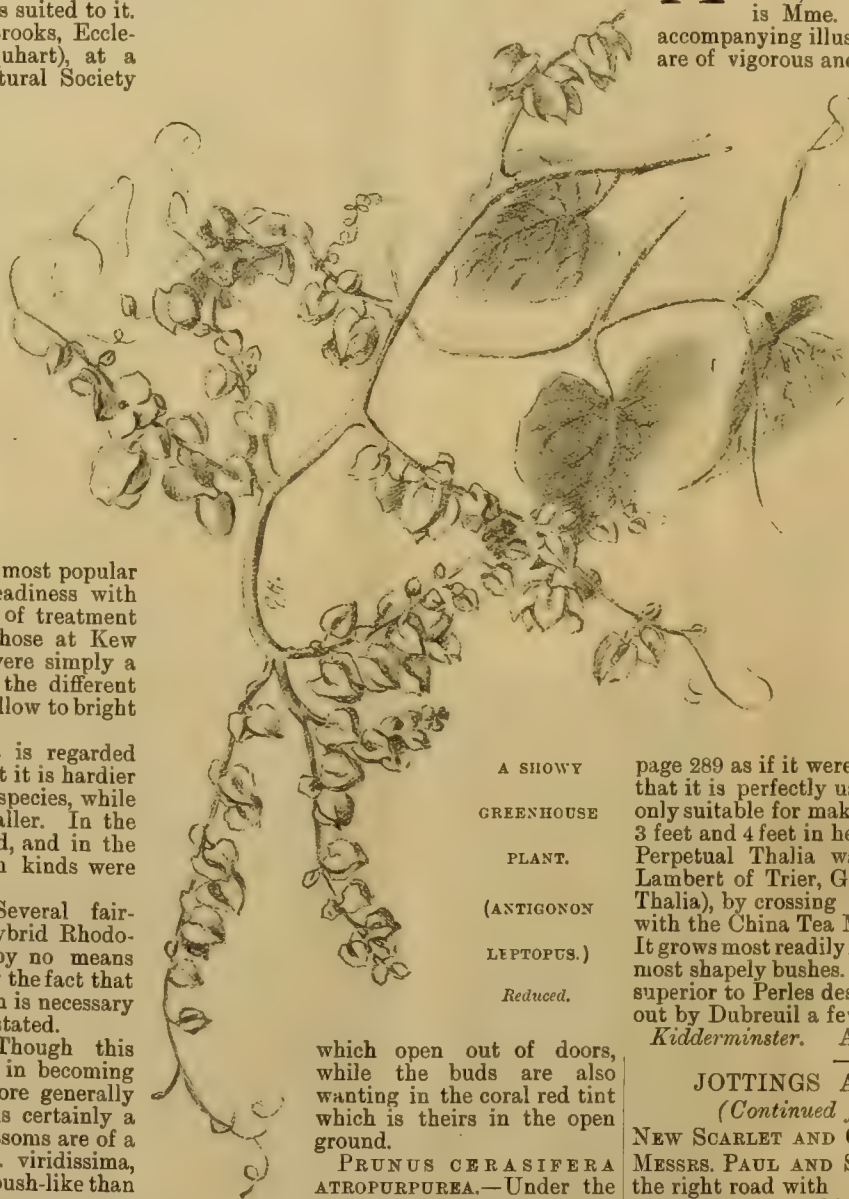
(Continued from page 301.)

NEW SCARLET AND CRIMSON HYBRID TEAS. MESSRS. PAUL AND SON of Cheshunt are on the right road with

The Dandy, which is a seedling from *Bardou Job*, probably crossed with *Horace Vernet*; at any rate, the flower closely resembles this latter, only in miniature. The flower is a glowing maroon-crimson and fragrant. The plant is a good grower, as I saw it at Cheshunt both as a maiden and cut-back, though rather addicted to mildew.

Messrs. A. Dickson and Sons have a trump card to play with

George Dickson, a fine, large, deep-glowing crimson Hybrid Tea, with well-formed



A SHOWY
GREENHOUSE
PLANT.
(ANTIGONON
LEPTOPUS.)
Reduced.

which open out of doors, while the buds are also wanting in the coral red tint which is theirs in the open ground.

PRUNUS Cerasifera atropurpurea.—Under the name of *Prunus Pissardi* this variety of the Cherry Plum is largely planted for the sake of its rich coloured leafage during the summer months, but that it is also available for forcing is well exemplified at Kew. Simultaneously with the expansion of the small white blossoms the leaves begin to unfold, but they have not the rich hue of those which develop out of doors.

P. JAPONICA ALBA PLENA.—This, known also by the specific name of *sinensis*, is much grown for forcing, the slender upright shoots

leathery petals. It was first exhibited at Leicester Abbey Park Show in August, 1903, and was also included in their first prize stand of twenty-four trebles at Gloucester on July 18 last. It is to be hoped that it will prove a good grower. But the greatest acquisition of all is Mr. Hugh Dickson's

J. B. Clark, which really created a sensation at the National Rose Society's Regent's Park Show, where it obtained the silver medal for the best Hybrid Tea in the nurserymen's classes. It will be remembered that this variety gained a gold medal at the National Rose Society's autumn show last year, but several friends tell me that the blooms were then very much poorer than those exhibited at Regent's Park. I was fortunate enough to see the fine box of nine blooms just after it had been judged,

and can safely say that I have never seen a crimson Rose to equal it, much less excel it. I am indebted to the raiser for sending me the following description of it: "The growth is strong, upright, and very vigorous, making a large and handsome bush; the foliage is broad and stout, bronzy green in the young state, changing to dark green with age. The blooms are very large and beautifully formed; the petals, which are very smooth, are of great size and depth; flower very full and elongated, with high - pointed centre. The colour is unique amongst Roses, being intense deep scarlet

heavily shaded blackish crimson, the petals carrying a deep rich bloom like a Plum, giving to the expanded flower a glistening sheen indescribably beautiful. Its great depth and brilliance of colour, which is quite unique amongst the whole race of Roses, its splendid vigour of growth, its freedom of bloom, and fine, bold, handsome foliage at once stamp it as the one thing wanting amongst Hybrid Teas. Both for exhibition purposes and general garden decoration this Rose is unsurpassed, and is destined to take a unique position amongst Hybrid Teas." It will be seen that if *Etoile de France* has disappointed us, British raisers are tackling this colour question in real earnest, and if only these new introductions prove of value to the ordinary rosarian as well as to the exhibitor, we shall not be able

to find fault with the Hybrid Tea class much longer on this account.

A GLIMPSE INTO THE FUTURE.

The chief reason why M. Pernet-Ducher has been so successful is that he has been conducting his hybridising experiments upon systematic methods. Undoubtedly his greatest success was the obtaining of that remarkable Rose, *Soleil d'Or*, because it was the result of a bold attempt to strike out on new and entirely different lines from those pursued by other raisers. Curiously enough the production of this hybrid Briar never excited as much attention in England as its appearance really warranted, and even now most people are unaware of the great part that it is destined to play in the future of the Rose. I will do my best to explain why this hybrid is of such importance, and

proved successful with it. The production of *Soleil d'Or* proved, to quote M. Viviani Morel, "that the pollen of *Rosa lutea* is capable of fertilising the Hybrid Perpetuals, if not all of them, at least a very large number. There still remains, it is true, the sterility of these new hybrids, which it is necessary to partly overcome, even if it cannot be entirely suppressed. I have an idea that this can be accomplished by varying the sections on which the new hybridisations are tried." This was written in 1902, but since then M. Pernet-Ducher has obtained some marvellous seedlings from *Soleil d'Or* of indescribable beauty. Moreover, he is now using the pollen of these remarkable seedlings to cross-fertilise both the Teas and Hybrid Teas, and with no little success. My friend Mr. G. L. Paul tells me that he feels certain that both *Le Progrès* and M. Joseph Hill have *Rosa*

lutea blood in them, and says that we are on the eve of obtaining some beautiful yellow varieties from the same source. In 1906, M. Pernet-Ducher hopes to distribute his first set of seedlings of what he calls *Rosa pernetiana*, which have been raised from *Soleil d'Or*, and these will no doubt cause a most agreeable surprise to rosarians. Never in the history of the Rose has it reached such a degree of popularity as at the present time, but it is quite evident that if it is to maintain its high position, our hybridists, both in England and on the Continent, must continue to break away



ROSE MME. D'ARBLAY ON AN ARCH.

how it will affect the coming race of Hybrid Teas. In order to do so it will be necessary to remind those who have forgotten that *Soleil d'Or* was obtained by crossing Antoine Ducher, a Hybrid Perpetual raised by Ducher in 1867, and remarkable for its large flowers, which are double, bright red, and of a globular shape, with the Persian Yellow Rose. This latter has always been supposed to be a double variety of the single yellow Austrian Briar (*Rosa lutea*), but whether this is so I am not prepared to say. *Rosa lutea*, with its brilliant and fascinating colour, has been an attraction to the hybridist for many years past, but all attempts to use it as a seed-bearer have given only negative results. Neither has it proved at all tractable as a pollen parent until quite lately, when M. Pernet-Ducher, Dr. Müller, and Herr Peter Lambert have each

from the beaten track which they have been exploiting for the last half century. Many of the varieties now being put into commerce—especially those with the short stumpy growth of the Lady Mary Fitzwilliam type—will never find favour in the garden, however popular they may be with exhibitors. We must have vigour, perfect hardiness, and definite colouring if the Rose is to prevail in the garden, but as long as English raisers are granted gold medals for "pasty washed-out-looking things" we are scarcely likely to persuade them (I again quote M. Viviani Morel) "to try crosses between types of Roses widely different, as regards form, colour, and habit, from those actually in cultivation in our gardens."

ARTHUR GOODWIN,

The Elms, Kidderminster.

GARDENING FOR BEGINNERS.

SIMPLE HINTS.

ORCHIDS FOR BEGINNERS.—There is a certain fascination in growing Orchids that appeals strongly to many amateur gardeners, and there is no doubt that more would start Orchid growing were it not

for the fact that they are under the impression most Orchids need great heat for their successful cultivation, and that others at least need constant and careful attention. Such, however, is not the case, for there are quite a number of Orchids which may be grown in a cold greenhouse which is protected from frost during the winter months. Many of the *Odontoglossums*, *Masdevallias*, and others may be grown quite well in a cool shaded house even by an amateur who is away from home all day. According to a German gardening paper an amateur has made the culture of certain Orchids appear

ridiculously simple. In the beginning of May the thought occurred to him of trying to grow a number of Orchids in an open window-box in order to see how they would thrive. For this purpose he made use of a large flower-box that fitted in the window on the west side of the dwelling-house. It received no sun until about three o'clock in the afternoon, owing to the shade of a high wall. A glass roof was fitted on the box for protection against the rain, but otherwise the plants were freely exposed to the air. During prolonged sunshine they were shaded, but when the sunshine was only intermittent, and during the latter half of August, they were not shaded at all. The plants used for the experiment were put in Beech-leaf soil, and a covering of moss was placed on the top. *Dendrobium nobile* grew well. *Epidendrum cochleatum* grew well and flowered freely. *Gongora galeata* likewise thrived well. *Lælia albida*, *L. anceps*, *autumnalis*, and *majalis* also proved satisfactory and made good growth. The *Lælia autumnalis* was taken from a greenhouse soon after Easter, and although it had then no roots it started into growth. A shrivelled *Lælia pumila* var. *præstans*, also brought from the greenhouse, likewise started into growth and made a shoot. *Mormodes pardina* made good progress, and *Odontoglossum crispum* kept in excellent health. *O. grande*, *O. pulchellum*, *O. Rossii*, *Maxillaria luteo-alba*, and *pieta* promised to do well under what was practically open-air treatment. Of *Oncidiums*, *incurvum* and *varicosum* thrived very well, but *O. macranthum*, on the contrary, began to fail, and had to be removed from the case, which proved too hot and too dry for it. *Cypripedium cananthum* became visibly weaker after a short time, while *C. Charlesworthii* and *C. spicerianum* did very well. *Trichopilia tortilis* would not grow at all. A small plant of *Zygopetalum Mackayi* did quite well. This writer concludes by saying

that, although it may not be possible to draw any certain conclusions from the one attempt, yet he ventures to assert that a great number of Orchids are harder than they are generally considered to be.

The Rose Mallow.—Probably no annual produces more beautiful flowers than the Rose Mallow, *Lavatera rosea splendens*, and no small town garden should be without it. It is quite easily raised from seed sown in the open border where the plants are to flower. Take care, however, to give the plants plenty of room, otherwise they will only flower at the top. The flowers, which are of the true Mallow form, as may be seen from the illustration, are rich rose-pink in colour, and make a magnificent display. The blooms remain in full beauty for some time, but gradually lose their rich colour as they age.



THE ROSE MALLOW IN A SMALL TOWN GARDEN.

Lavatera trimestris, another beautiful Mallow, has not quite such richly-coloured flowers as *L. rosea splendens*, but it, too, is valuable. The plants figured were grown in a garden in a London suburb, and made a grand display for weeks.

Planting and Pruning Bush Fruits.—In many gardens bush fruits and Raspberries are too much looked upon as permanent things. Rotation is as necessary in the case of Raspberries and bush fruits as in other crops. Of course, it is not easy—perhaps it is not wise—to say off hand what the limit of duration should be, as so much depends upon the character of the soil, but certainly they should not be permitted to remain on one site till exhausted. All things wear out, and the proper time to move to a fresh site is well in front of the time when weakness of the growth and smallness in the fruit are plainly perceptible. The energetic gardener will raise all his stock of bush fruits at home, and have bushes ready to begin bearing as soon as moved, and then, when a bush gets too old to do its work

properly, it should be removed and a young, vigorous bush planted, or, better still, have the bush fruits worked on the same lines as the Strawberries—make new plantations at suitable intervals. Thus there will always be bushes well up to their work. It is an easy matter before beginning the pruning of Gooseberries or Currants to select a few strong cuttings of the best varieties and lay them in till there comes a wet day to prepare them for planting. When in their prime bush fruits under good management bear heavy crops of fruit, and should be well nourished. Before planting takes place the ground should be trenched up deeply and manured, and, besides this, in after years rich top-dressings should be given. A mulch of manure on the surface during the time the fruits are swelling is very beneficial to Black Currants, Raspberries, and Gooseberries. Cow or pig manure, though it may contain less plant food than stable manure, is very beneficial on light soils.

In Pruning Gooseberries first look round the bushes and remove or shorten back all branches which are too near the ground, as earth-splashed fruits are not appreciated. By pruning to a bud pointing in the direction the future shoot should take we can keep some control over the shape of the bush. The best shape for Gooseberries and Red and White Currants is an open-centred bush some 4 feet or 5 feet in diameter, and to ensure a full crop of Gooseberries there should be a good sprinkling of young shoots left in all parts of the bush, and they should be well placed as regards space, so that there may be no crowding or crossing or stealing each other's light. All shoots which show a tendency to cross

the open centre must be cut out or spurred in. The bearing shoots need not be much shortened. In most cases the removal of the soft unripe points will be sufficient.

Red and White Currants bear so freely on spurs that it is better to trust to the spurs for the crop than run the risk of overcrowding the bushes with young wood, though this will not prevent a young shoot being left for filling up or extending the bush where required. Red and White Currants are often used for filling up north walls or for training on the north side of wooden fences, in which position they bear very freely. And they are valuable for late use, as they are easily protected from birds and wasps. We have had Currants covered with hexagon netting till the end of November, and they come in useful for mixing with autumn-bearing Raspberries for tarts, &c.

In Pruning Black Currants the aim should be to obtain a somewhat thinly branched bush without the open centre, as recommended for

Gooseberries and Red Currants, and the growth should be merely thinned, as the fruits come on the young wood and not on spurs. To keep the bushes full of young bearing wood an old branch may be cut out occasionally to encourage the production of young shoots. Very little shortening will be required. By cutting away much of the young wood we reduce the bearing capacity of the bushes. A watch should be kept upon the bushes when the buds are swelling, and all large buds removed and burnt. Of late years the Black Currant mite has found its way into small gardens, and when this pest is introduced, unless it can be cleared out by the removal and destruction of the abnormally large buds when they are few in number, the whole plantation may have to be destroyed. At present there is no cure for this pest when it has established itself on all the bushes beyond the drastic one of destroying the bushes. We have either to stamp it out by hard pruning or by giving heavy dressings of manure to increase the vigour of the growth. It has been said that the Dutch Giant is virtually immune. If it is it has escaped by reason of its vigorous growth. Winter and spring washings with insecticides may have some effect, but the surest remedy at the beginning is to remove and burn promptly every swollen bud which contains the insects.

The Bud-eating Birds are troublesome in some districts, and it is sometimes recommended to delay the pruning till spring to see what the birds will leave. This system of leaving the birds to work their will first has never appealed to me as being the right one, when by a free use of soot and lime the birds can be kept off the bushes. It is necessary, however, to be in time with the dressing before the birds begin the attack. If the dressing is delayed till the birds have begun work it will require a persistent effort to drive them away. In bad cases syringe the bushes first with quassia extract, and dust on the lime and soot mixture while the bushes are damp. I have never known this to fail in preserving the buds, though the dressing may have to be repeated. Apart from its effect upon the buds, the dressing will be beneficial in cleansing the bark and adding to the health of the bushes.—H.

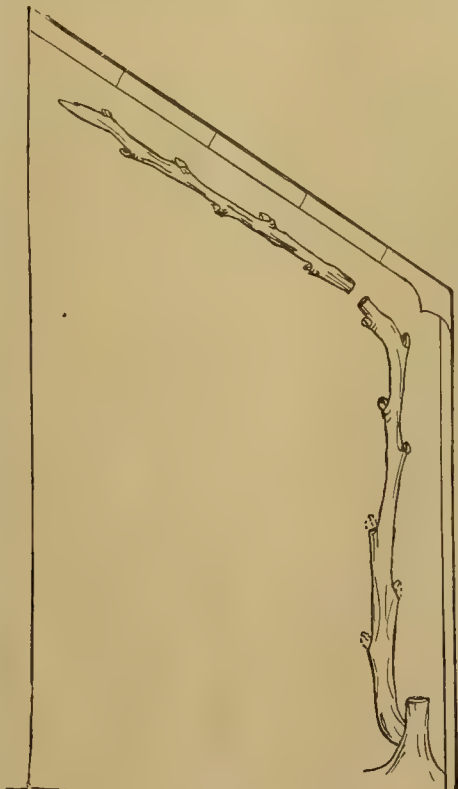
Pruning the Vine.—Many amateur gardeners seem to be ignorant of the proper way in which to prune their Vines, judging from letters we have received and from Vines we have seen. First of all, as to pruning a young Vine after it has made one season's growth. Supposing it has grown from 4 feet to 6 feet long during the first summer after planting, this shoot must be cut back in winter to two good plump buds near the base. Usually two good buds will be found quite near the ground. In the spring these buds will burst into growth, and when each has grown, say, 12 inches long, rub off the weaker shoot. The remaining shoot will make vigorous growth during the next summer, and in the following winter must be cut back to within 4 feet of the base, as shown in the accompanying diagram. The short stump at the base shows where the preceding year's growth was cut back. Supposing the trellis to be 3 feet from the ground, this will leave 1 foot of the Vine to train to the trellis. In the spring several buds will burst into growth. Those below the trellis on the stem must be rubbed off. Leave the top bud to form a shoot right up the trellis, and two more buds to form a shoot on either side of the Vine. The latter should alternate with rather than be opposite to each other, if buds in that position can be selected. The leading shoot will probably grow 5 feet or 6 feet during the summer, possibly more, and the two lateral shoots will make good progress also. There may be bunches on the lateral shoots; if they are allowed to remain it will do no great harm, but it is usual to remove them, so that the Vine may make good growth. The points of the lateral shoots must be pinched out at two or three joints beyond the bunch; this will cause

other shoots, called sub-laterals, to form. These must be pinched when they have made, say, two leaves. The leading shoot must be left untouched. Now at the next winter pruning the



THE DOTTED LINES INDICATE WHERE THE LATERAL GROWTH SHOULD BE CUT BACK.

leader must be left, say, 3 feet long, making the Vine 7 feet long altogether. As to the lateral shoots, the second illustration gives a good idea how they are to be pruned. They will form the first fruit-spurs. Cut them back to within either one or two of the lowest buds—to one if the lowest bud is plump and hard, and to two if the lowest is not a good one. If both these buds



SHOWING HOW TO PRUNE A VINE AFTER IT HAS MADE TWO YEARS' GROWTH.

make a shoot in the spring, as they probably will, select the one that bears a bunch (this can be determined when the shoot is quite young), and rub off the other. If neither bears a bunch,

select the stronger. During the next summer other lateral shoots must be allowed to form at 18 inches apart, those on one side of the Vine alternating with those on the other as nearly as possible. Let the leader grow uninterruptedly and pinch the points from the lateral shoots at two leaves beyond the bunch, or, if there is no bunch, when the shoot has produced four or five leaves. The following winter leave another 3 feet of leading shoot, and cut back the laterals to one or two buds, as already explained. Leave 3 feet of the leading growth annually until the top of the trellis is reached, and continue to form lateral shoots all the way up the leader. The Vine may be pruned in December unless it is hard forced; then, of course, it must be pruned earlier.

GARDENING OF THE WEEK.

FLOWER GARDEN.

LIFTING AND REPLANTING TREES AND SHRUBS.—Under such favourable climatic conditions as now obtain, and with the soil in such perfect order—mellow and warm—for planting all kinds of trees and shrubs, seize every opportunity of proceeding with this work, for it will be a great advantage to have as many planted now as possible. Not only is it a gain to have the bulk of the work completed before the busy spring season, but the subjects operated on benefit greatly. The roots will take possession of the soil at once, become comparatively established in their fresh quarters, and therefore much better able to withstand the parching effects of easterly drying winds, which tax newly-planted shrubs so heavily during the spring months. Carry all details out thoroughly, and if not able to get through as much as was contemplated before the season is too far advanced, and soil and weather are unfavourable, it will be far better to postpone the remainder until March, or even April, than to scamp the work, or plant in wet, cold soil.

SUCCESSFUL TRANSPLANTING depends to a great extent upon the care exercised in lifting. Secure as large and solid a ball of earth as possible and practicable by digging a wide trench round the specimen at a distance according to its nature and size. For subjects producing long rambling roots the distance at which to begin operations must be greater than for those of a more fibrous character. In any case, allow a circle large enough to be clear of the roots. Having opened a trench of sufficient width to stand in, and slightly deeper than the ball is expected to be, begin forking out the soil down to and amongst the roots with steel forks, until a solid ball of earth is reached. Remove the loose soil from the trench as the work proceeds, and mine underneath to loosen the ball as much as possible. Further work depends on the size and weight of the plant to be moved. For very large and heavy trees, there are several tree-lifting machines that are a great aid to this work; but these should be superintended and handled by thoroughly practical men, to prevent accidents both to men and plants. For others, somewhat smaller and lighter, strong planks worked underneath the ball crosswise for attaching ropes or chains for drawing, and to preserve the balls from harm from leverage, &c., will suffice; while for still smaller ones, what may be called ordinary sized ones, all that is necessary is to have a few mats to protect the roots and keep the ball of earth intact, and a plank or two for leverage. Others of smaller size can be safely handled with a crowbar. A spade or fork pushed well under will loosen the tree with its surrounding earth, it can then be drawn out of the hole on to mats for removal to a fresh position. Ordinary nursery stock can, of course, be dealt with in the usual way. In

REPLANTING, dig holes sufficiently large to allow ample room for the plants to stand in, with a good margin to spare for spreading out the roots and for fresh loose soil around the latter. Trim the points of roots that were broken and bruised in lifting, laying them in carefully and covering with fresh soil, and stamping in well as the filling up proceeds. Give a soaking of water where practicable to settle the soil about the roots. Stake securely, and mulch with any loose protective materials available.

BEDDING PLANTS that are housed should be periodically looked over, or losses from damp will occur at this season. Pick off all damp and decaying leaves and bloom, and in bad cases dust with quicklime. J. ROBERTS.

The Gardens, Tan-y-bwlch, North Wales.

INDOOR GARDEN.

SWEET PEAS.—This now deservedly-popular flower, if sown in pots during the present month, will be found very useful for cool greenhouse or cut flower decoration in spring. Sow eight or ten seeds in a 5-inch pot, using a compost of two-thirds loam and one-third leaf-mould, adding plenty of sand. Place in a cool pit, give a good soaking of water, and cover with paper till germination begins. Keep a sharp look out for mice, as they are often to be found in cool pits and frames during winter. Three to six plants will be sufficient in each pot. When grown thinly much larger flowers and better growth are obtained

than if a dozen or more are crowded in a pot. Shift on into 8½-inch pots when they are growing freely. Named varieties are very numerous, and in making a selection take care to sow as far as possible only sorts of distinct colours, especially for greenhouse decoration, as they are much more effective. The Cupid varieties may be sown in the same way, and make very pretty pot plants; 5-inch pots will be large enough in which to flower them.

SALVIA.—Cut down *S. azurea grandiflora* (Pitcheri) when out of flower. Place sufficient stools in a cool house or frame to obtain a supply of cuttings later on. *S. splendens* and varieties are now a blaze of colour. Give manure water to keep them growing and flowering. *S. Heerii* is growing freely in a cool house. Stake and keep the growths carefully tied. This variety flowers early in the new year, and will be found very useful after the majority of *Chrysanthemums* are over.

SOLANUM CAPSICASTRUM.—Syringing may be dispensed with now, as the plants are thoroughly established in the pots after having been lifted from the open ground. The berries are colouring well. Pinch out any new growths which make their appearance or the berries will soon be hidden.

FRANCOA RAMOSA and **F. SONCHIFOLIA** can be kept in a cold pit or frame if house room is scarce, provided they are well matted up on frosty nights. The

ROSE HOUSE should be thoroughly cleaned during this month. Any replanting necessary the sooner done the better.

HARD-WOODED PLANTS.—The majority of what are called hard-wooded plants require very careful watering, especially in winter. If mildew makes its appearance, as is very probable owing to the recent spell of wet weather, especially on *Ericas*, dust the affected parts with sulphur immediately it is detected. Weak manure water can be given to many of the plants showing the flower-buds. Peruvian guano dissolved in water is one of the safest. Give air on all favourable occasions, avoiding a draught.

Royal Botanic Gardens, Kew.

A. OSBORN.

ORCHIDS.

MILTONIAS.—*Miltonia Phalaenopsis* is a very distinct and beautiful Orchid, but as a rule it is rather a delicate plant to cultivate. It appears to require a warmer temperature than many of its congeners. A shady position well up to the roof glass in the Mexican house is the best place for it. Its principal requirement during the winter months consists of plenty of fresh air on all mild days, and where the atmosphere is rather on the dry side a plentiful supply of water at the root is necessary whilst in a growing state, limiting the supply during the season of rest. The plants may be grown in deep pans or half pots, which must be half filled with drainage material. Over this place a thin layer of rough sphagnum. Pot the plant a trifle above the rim in a compost of fibrous peat, leaf-soil, and living sphagnum moss in equal parts, mixing a few small crocks and some coarse silver sand with it to ensure porosity. Keep plenty of the heads of the moss on the surface, so that in a short time the whole of the top of the compost will be covered by a living head of moss. Avoid potting the plants too compactly, the compost being compressed just sufficiently to make the plant firm. *Miltonia Endresii*, formerly known as *Odontoglossum Warszewiczii*, requires a light position in the intermediate house. This plant is now sending up its flower-spikes, and should be copiously watered whenever it appears dry. When the flowers open gradually diminish the supply, very little being needed until growth recommences. *M. bleuana*, and its variety *nobilior*, also the rare *M. schroederiana*, are now in full growth, and should be treated in a similar manner to *M. Endresii*. For some time past the young growths of the well-known *M. vexillaria* have been comparatively at a standstill, but now that they are beginning to grow again the moss on the surface should be kept a trifle more moist. Give them plenty of fresh air on every favourable opportunity. The Brazilian *Miltonias*, as *M. spectabilis*, *M. moreliana*, *M. candida*, *M. Clowesii*, *M. Binotii*, &c., that have just gone out of flower should be kept at rest as long as possible, giving sufficient moisture to prevent the leaves or bulbs from shrivelling. If the plants are standing in a naturally damp position little or no syringing between the pots will be necessary for several months to come, but the atmosphere must not be kept too dry or red spider will attack the foliage, which will soon become permanently injured.

CYMBIDIUMS.—*Cymbidium tracyanum*, *C. winnianum*, and *C. (Cyperorchis) elegans* are now in bloom in the intermediate house. These plants require to be kept fairly moist at the root through the winter months. Strong plants of *C. lowianum* and *C. l. concolor* that have made their growth should be kept on the dry side or they will start away into growth again and fail to bloom satisfactorily. Those showing their flower-spikes require copious waterings at the roots, and they should be raised well to the roof glass so as to obtain the maximum amount of light. The new *C. Sanderi* and *C. Sanderæ* should also be grown in this house, affording water very carefully until well established. The present is a good time to repot *Cypripedium niveum*. I have grown plants of this species in several sorts of composts, and find it succeeds very well in three parts loam to one of peat, mixing plenty of small crocks with it. The pan or pot used must be well drained, and the drainage secured by a layer of thin firm turf. The plants should be potted in the same way as an ordinary stove plant, keeping the base of the leaves down on to the rim of the pot. Suspend the plants in a light position in the Cattleya house, and where the foliage will be within a foot of the roof glass. Abundance of water is necessary at all times. My method is to dip the plants in tepid rain water until it reaches nearly to the rim of the pot. This is done whenever the soil appears to be the least dry.

C. concolor requires exactly the same treatment. In the Cattleya house the autumn-flowering *C. labiata* makes a fine display of bloom at this season, and it is advisable when removing the flower-spikes to cut them and the sheath clean off down to the base of the leaf, and as close as possible to the apex of the pseudo-bulbs. After the spikes are taken off remove the plants to the coolest part of the house and where there is the least atmospheric moisture. While at rest keep the plants rather dry at the roots, but not so dry as to cause the bulbs to shrivel excessively.

Burford Gardens, Dorking.

W. H. WHITE.

FRUIT GARDEN.

LATE GRAPES.—Now that fogs and damp are prevalent much care will be needed in the management of late vineries. On fine, dry mornings the ventilators may be opened fairly wide, but during damp or foggy weather the house must be kept closed to prevent the damp air from entering and settling on the berries. Endeavour to keep an equable temperature of about 50°, except during frosty weather, when 5° lower will be more suitable. Should the borders require water choose a fine morning for applying it, when plenty of air can be admitted to dispel the moisture. Afterwards place a mulch of clean straw over the surface of the border to prevent moisture from rising. Lukewarm water should be applied at this time of year. Examine the bunches once a week and remove bad berries. This requires a careful hand, or more harm than good will be done by pricking other berries with the point of the scissors. During spells of bright sunshine the bunches of late Muscats which have lost their foliage may be shaded with sheets of tissue paper. The direct rays of the sun will cause them to shrivel and brown, when it will be impossible to keep them for any length of time.

WINTER CUCUMBERS.—We are now entering a very bad time of the year for the successful culture of Cucumbers, and much care will be needed in their general management if a continuous supply of fruits is to be had all through the winter months. Watering is one of the chief points to study. Avoid overfeeding now that growth is slow. As roots appear on the surface top-dress with a little fresh fibrous loam. Endeavour to keep a sweet atmosphere by opening the top ventilators for a short time in the morning during mild weather. After the appearance of black fogs the roof glass must be washed without delay. The latest batch of plants may be stopped when they have covered two-thirds of the trellis. Regulate and train the side growths, giving them sufficient room to develop their foliage perfectly. If the fruits are not required for immediate use they should be cut off. This will encourage the plants to make more growth and produce a welcome crop during the early part of the new year. Should hard frost supervene cover the pits at night with mats. This will lessen the necessity of hard firing.

THE WINTER MOTH.—Where the depredations of this moth are prevalent every means should be taken to reduce their numbers. A good dressing of lime underneath the trees will do much good now that the larvae are on the move. To prevent the female moths from ascending the trees (which at this time of year they do in order to find a suitable place to deposit their eggs) place a belt of some sticky substance around the base of the tree trunks. It will be necessary to apply fresh grease at intervals of a few days, as it loses its adhesiveness through exposure. Care must be taken that nothing is used which is likely to injure the trunks. A mixture of grease and tar in equal proportions will make a suitable composition for this purpose.

Fruit Department, Royal Gardens, Windsor.

KITCHEN GARDEN.

GLOBE ARTICHOKEs are plants that resent cold, and the sooner some protection is afforded them the better. Plenty of straw stable manure, after all the droppings and short litter have been shaken out, forms the best protection for this rather tender vegetable, except clean straw, which is preferable to any other covering. The lighter and more open the covering is the better. A covering that approaches a solid substance is ruinous. Solid matter holds moisture, and moisture means cold. If the remaining foliage of the Globe Artichokes is held up carefully with the hand, and the straw or litter placed lightly round the plants to the depth of 9 inches or 12 inches, and extending double that distance from the base of the plants, they may be considered fairly safe for the ensuing winter, unless the plants are growing on a piece of ground having a damp foundation. The Globe Artichoke delights in deep, rich soil, but the subsoil must be dry or the losses from cold in severe winters will be numerous, in spite of protection.

JERUSALEM ARTICHOKEs.—The tubers of these are best left in the ground, unless want of space forbids. Like other kinds of tubers, their flavour deteriorates when lifted out of the soil before required for use. Cut over their haulm and lay it along the tops of the drills as protection. In the event of the weather becoming severe more covering will be required, and they can be dug out when wanted independently of weather.

CELERY.—Late crops of Celery that require earthing up should now be attended to on the first favourable opportunity when the weather is fine and dry. Most of us are anxious to have long thick heads of Celery, accordingly the addition of but 1 inch of soil at the top of the trench will be acceptable when lifting time comes.

BOX EDGINGS IN THE KITCHEN GARDEN.—These, if in good order, always give the kitchen garden a neat appearance. If the time can be spared this important work should be seen to. Of course, it is only when mild open weather prevails that the work can be satisfactorily

accomplished, otherwise the work of renovating the box edgings will have to wait until next spring. When relaying the Boxwood by all means renew the soil. Make the plants very firm after they have been planted, but defer any trimming the tops may require till next April, when all danger of frost will be gone. Boxwood replanted at this season often succeeds better than Boxwood planted in the spring-time.

LETTUCES.—Where cold frames can be procured much can be done to maintain a supply of Lettuces at this season. It frequently happens that large supplies of Lettuce plants are growing in some rather exposed part of the garden. If they are carefully lifted and planted in a cold frame, removing all decayed leaves from the plants, they will, with plenty of fresh air, do admirably.

CAULIFLOWERS.—Late plantations of Veitch's Autumn Giant have been remarkably fine this season, and are still yielding good supplies, but require continual watching, in order that some of their leaves may be broken over, so that they may lie over the hearts to protect them from frost. It is advisable to lift a few of them that are fully grown with a good ball of soil at their roots, and if carefully planted among some spent Mushroom-bed material or old leaf-soil on the floor of some open airy shed, they will be in good order for using for some time to come.

EARLY BROCCOLIS are rather plentiful at present, and may be treated similarly to the above. Failing a shed, old frames answer the purpose well, and they can be matted at nights when frost is severe. Young Cauliflower and Cabbage plants require close attention; the former must have plenty of air when weather will permit, and the latter require their surroundings frequently stirred with the hoe, drawing a little earth up to the neck of any leggy plants to prevent injury from wind. J. JEFFREY.

The Gardens, St. Mary's Isle, Kirkcudbright.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, W.C. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

Legal Points.—We are prepared to answer questions of law which have anything to do with the subject of gardening and forestry. The questions should be as clear and explicit as possible, so that there can be no doubt as to the point of the question. Answers will be found in a separate column headed "Legal Points."

FLOWER GARDEN.

COVERING SLOPING BANK (G. L.).—You could not do better than cover the bank with some of the best varieties of wickstraiiana Roses, such as Alberic Barbier, Rene André, Dorothy Perkins, Jersey Beauty, Paul Transon, Pink Roamer, and others. These Roses make very long, slender growths, and would creep along the bank and soon cover it. Their small rich green leafage alone is beautiful, and they flower freely also. If you do not wish for Roses, you might plant Ivy, which would doubtless do very well, or *Euonymus radicans variegatus*, or *Hypericum moserianum* (St. John's Wort), or Periwinkle, or Heather. If any of these were planted carefully they ought to succeed and soon cover the bank.

VIOLETS SEEDING WITHOUT FLOWERING (T. Lurani).—Several plants have a tendency to produce flowers of different construction during the season, and among them are several of the *Viola* species. These are termed dimorphic or cleistogamous flowers, and of the Violets many produce normal flowers with petals in spring which seldom or never produce seeds. Later on in the summer the plants produce flowers which have very small or no petals at all, and these flowers are always fertile. The deficiency of the corolla is thus associated with increased fertility. Seeing that this is a natural state of things with your *Viola cucullata*, it would be useless to try and remedy it. If the plants are getting starved

or worn out a good dressing of leaf-soil would be of great benefit to them. Plants in rather dry positions and in full sun usually produce more of these fertile apetalous flowers than those in cool, partly shady, and moist positions.

SEED SOWING (L. Byng).—The risk you run from November sowing of the seeds mentioned is that in all probability none will vegetate before March. Those most likely to remain dormant even when sown in early October are *Aquilegia*, *Canterbury Bells*, *Delphiniums*, *Hollyhocks*, *Lupins*, and *Linums*. All these would vegetate more quickly and with far greater certainty if sown in gentle heat in January. November is too late for sowing seeds in the open ground, though occasionally such things as *Wallflowers*, *Sweet Alyssum*, *Candytuft*, and such like on warm soils vegetate quickly if the weather remains open and mild. Such as *Coreopsis*, *Gaillardia picta* vars., *Cornflower*, &c., may, if sown in the open, come somewhat earlier into bloom, but even then the gain would not be great.

CHRYSANTHEMUMS AND CARNATIONS (E. Armstrong).—You have probably given your plants too much water, or you have let them get dry, or perhaps you have given them an overdose of chemical manure. We are inclined to think, however, that the mischief lies in the watering. It is difficult to advise on paper as to watering. It is most important that the *Chrysanthemums* should not get dry at the roots, and it is equally important that the soil should not be kept continually wet. Wait until the soil seems to be getting somewhat dry before watering and then thoroughly soak, filling to the rim several times. You probably damaged the roots of the *Carnations* when repotting. After repotting give little water for some few weeks. If you did not thoroughly water a day or so before repotting, the balls of soil may still be dry. Put the tuberous *Begonia* bulbs in shallow boxes, sprinkling some soil over them, and keep in a frost-proof house or shed. Do not water them at all in winter.

ANEMONES EATEN BY SLUGS (Bonaccord).—Your *Anemone* plants have been eaten by slugs and snails. You should search for them at night with a lantern, for it is then that they come out to feed. Damp soil encourages slugs and snails, so you should see that your border is well drained, and avoid giving farmyard manure for a time; use artificial instead. Dry dressings of soot and lime, salt and lime, or lime and caustic soda will kill or drive them away. Use lime in a very finely-divided state, and quite fresh. Give two or three dressings, the second some fifteen to thirty minutes after the first. Lime and caustic soda are perhaps the best; the proportion should be four parts of caustic soda to ninety-six of lime. These dressings should be applied very early in the evening. If your land is badly infested with these pests nothing will clean it but a good dressing of gas-lime and deep trenching. If you use gas-lime you must not grow anything in the soil for some months afterwards.

CUTTING DOWN PEONIES (B. C. W. W.).—Cutting down the *Peonies* can only be likened to removing the foliage of fruit trees, and in each case it is due to the proper elaboration of the sap that the subsequent buds are fully developed which produce the next year's crop. If you examine the crown of the plant at flowering time you will find only the elongated, half-formed crown-buds in view. After flowering these buds are developed and matured. To remove the foliage annually would speedily ruin the plants. No fresh growth would appear in the *Peony* if cut down, and as there is but one issue of stem and leaf growth each year, it is absolutely essential that this growth be fully developed. Plant such *Daffodils* as *Emperor*, *Empress*, and *Sir Watkin*, edging the bed with *Chionodoxa Lucillæ* or *Muscari conicum* for spring flowering,

with *Lilies* such as *speciosum* or *tigrinum* for autumn flowering. This would provide a good variety and succession of permanent perennials, and we think you would find the *Peony* foliage to harmonise quite well with these things.

Mrs. Bradwell.—You must not leave the *Aloes* out of doors during the winter months, especially as your garden is in the Midland counties. If it were in the favoured counties of the south-west of England then you might probably leave them out of doors with safety. Yes, the room you mention would do if it is dry and frost proof.

R. B.—We have experienced stem-breaking in *Carnation* Mrs. Nicholson, of which you complain. Your letter only confirms our first-formed opinion of its uselessness. A good flower on a stem of this kind is practically useless. The variety is not alone so far as the large drooping flowers are concerned, but it is another matter when they have obviously weak stems. It is an unfortunate failing in an otherwise good *Carnation*.

S. Marshall.—The *Carnation* plant which you sent is a very fine example of a monstrous growth commonly known as "Wheat-ear *Carnation*." This peculiar formation is due to a large increase in the number of the bracts of the flower and the absence of the other parts, but why one plant only among many others should assume this appearance is not known, nor is the cause of this growth. Other plants, the common *Plaintain* for instance, sometimes exhibit the same or a very similar peculiarity.—G. S. S.

E. E. C.—You will very probably find in the *Bagle* plant (*Ajuga reptans purpurea*) a trailer that will suit your purpose. The foliage is of a reddish brown tint. You may also try *Oxalis corniculata rubra* for the same purpose, as its leafage is dark coloured, and in a warm position outdoors you may find *Tradescantia zebрина*, which has rather dark leafage and trails, do very well. As a silvery variegated plant for summer trailing none is better than the ground Ivy (*Nepeta glechoma variegata*) for draping flower-pots or vases.

Yearly.—You could sow now or very early in January any of the following: *Cornflowers* in variety, *Limnanthes Douglasi*, *Poppies* (various), *Eschscholtzias* in many colours, *Calliopsis*, *Alyssum maritimum*, *Bartonia aurea*, &c. *Godetias*, *Candytuft*, *Dianthus*, *Lupins*, *Linum*, and *Mignonette* would be as forward if sown in January, while *Sweet Peas*, *Sweet Sultan*, *Nasturtiums*, &c., may be considerably assisted to an earlier display by sowing the seed in pots and transplanting them. We would prefer to sow the *Nasturtium* either in this way or in boxes, or defer the sowing till the end of January.

TREES AND SHRUBS.

BAMBOO FLOWERING (Bamboo).—The enclosed sprays of *Bambusa (Phyllostachys) Henonis* are, unfortunately, flowering examples. We say unfortunately, as in all probability the plants will either die after flowering or fall into such a poor condition that it will be impossible to induce them to start again. For the last few years several of the hardy *Bamboos* have been flowering throughout the country, but this year the trouble seems more acute. So far as can be ascertained, once a *Bamboo* has reached a flowering condition nothing can be done to save it, or at all events to prevent it from falling into such a state that its death is only a question of time. If seedlings are available one will, of course, feel confident of them for many years.

DAPHNE ALPINA (Rock).—This plant is quite hardy, and the position proposed on the rockery facing south-east should be suitable, although it will do just as well on one facing south-west. The position should be a well-drained one, and the compost in which it is to be planted should consist of two parts fibrous loam and one each of leaf-soil and sand. Mix well together, and, as the *Daphne* is a lime-loving plant, some mortar rubbish should also be added. It is not necessary to keep the plant you have in a cold frame for the winter, as it may be safely planted out now, and, if there is danger of severe frost after it is put out, a little protection may be given in the shape of *Bracken* or other light litter for a time. A slow-growing plant of small size, rarely exceeding 1 foot in height, this plant is worth a good place in the rock garden.

H. C. Gardiner.—*Magnolia Lenei* is perfectly hardy; indeed, it stands out as one of the very best of the hardy deciduous *Magnolias*. It is among the latest flowering of the *Yulan (Magnolia conspicua)* section, and on this account often escapes the spring frost. The early history of *Magnolia Lenei* does not seem to be well authenticated, but it is generally regarded as of hybrid origin, the parents being *M. conspicua* and *M. obovata discolor*. It first made its appearance, we believe, in Italy, and soon became a general favourite. As your specimen is in a pot

it will be quite sufficient to plunge it for protection during the winter, but, in doing so, care must be taken that the pot is well covered, as it is very liable to be broken by severe frost.

W. S.—Though stock might nibble a hedge of *Cydonia* when the plants were young, they would not do much harm when the hedge was fully developed. This means that a temporary wooden fence would be necessary at first; it might be removed later. The site should be well deepened and manured. Select young plants with good leaders, and, if planted not less than 1 foot apart and the strongest shoots were stopped sometimes, the hedge would thicken.

ROSE GARDEN.

ROSE GARDEN ON SLOPING LAWN (S. de M. Carey).—We should say a path could be allowed facing the house and a border on either side. These borders could be cut into parallelogram beds, and should be about 5½ feet wide. They would take about three rows of plants, and the distance from plant to plant from 18 inches to 24 inches. The centre row in each of the parallelograms could be half standard *Roses*, or pillars would look well, upon which the free-growing kinds could be planted. Supposing this walk were 6 feet wide and the beds either side 5½ feet each, this would take up a space of 17 feet in width. The other portion of the lawn could be laid out in circular beds 6 feet across and parallel beds 5½ feet wide and, say, 10 feet long. The circular beds would require about eighteen plants each, and the parallelograms about twenty each. You will require quite 500 plants. Plant each bed of one colour, and if possible of one variety. The suggested arched fencing would look very pretty if covered with the rapid-growing *Ayrshire*, *Evergreen*, and *wichuraiana* *Roses*. Some of the strong-growing *Tea-scented* *Roses* of the dwarf section would also do well upon the lower fences. Some pillar and weeping *Roses* interspersed in the new *Rose* garden should be allowed for, and a few free-growing bushes of the *Rambler* *Rose* grown as natural bushes. You would obtain a good idea of the appearance of the proposed beds if you had some sticks prepared with papers inserted in the ends. These sticks should all be of one height.

THIRTY EARLY AND THIRTY LATE ROSES (F. A. B.).—You will find the following selections representative and well varied. As your garden is damp it may be advisable for you to have the beds or borders artificially drained before planting. *Roses* can endure cold tolerably well, but a waterlogged soil is very harmful to them. Thorough aëration of the surface soil will do much to remedy the trouble. *Early-blooming* *Roses*: Those marked with an asterisk should be grown as strong bushes or climbers. *Moss*: *Common Pink* and *Crimson Globe*. *Austrian Briar*: *Harrisonii*. *Scotch*: *Double White* and *Altaica*. *Gallica*: *Rosa Mundi*. *Hybrid Chinese*: **Carmine Pillar*, *Mme. Plantier*, *Paul Ricaut*, and *Blancheffleur*. *Hybrid Briar*: **Una* and **Anne de Geierstein*. *Sempervirens*: **Félicité Perpétue* and **Flora*. *Multiflora*: **Electra* and **Blush Rambler*. *Wichuraiana*: **Elise Robichon*, **Jersey Beauty*, **Alberic Barbier*, and **Dorothy Perkins*. *Rugosa*: *Mrs. A. Waterer* and **Conrad F. Meyer*. *Hybrid Perpetual*: *Magna Charta*, *Charles Lefebvre*, *Clio*, *Crimson Queen*, *Jules Margottin*, *John Hopper*, *Mme. G. Luizet*, and *Baron de Bonstetten*. *Autumn blooming*.—*Rugosa*: *Blanc double de Courbet*. *Hybrid Perpetual*: *Mrs. John Laing*, *Ulrich Brunner*, *Dupuy Jamain*, *Earl of Pembroke*, *Ella Gordon*, *Frau Karl Druschki*, *Mrs. Sharman Crawford*, and *Victor Verdier*. *Hybrid Tea*: *Admiral Dewey*, *Augustine Guinoisseau*, *Caroline Testout*, *La France*, **Longworth Rambler*, **Mme. Alfred Carrière*, **Pink Rover*, *Gladys Harkness*, *Grace Darling*, **Grüss an Teplitz*, *Gustave Grunerwald*, *Mme. Abel Chatenay*, *Mme. J. Grolez*, *Mme. Wagram*, and *Marie Croibier*. *Tea scented*: **Gloire de Dijon*, *Marie van Houtte*, and *G. Nabonnand*. *Chinese*: *Mme. L. Messimy*. *Bourbon*: *Mme. Isaac Periere*. *Hybrid Noisette*: *Boule de Neige*.

CLIMBING ROSES MILDEWED (Denmark).—Reine Marie Henriette is very much addicted to mildew; indeed, it is not grown so much as it used to be for this reason. Perhaps the plants have reached the limit of good soil, and are now working in an uncongenial medium. There is not the least doubt rambler and climbing Roses require a hole fully 3 feet deep. We certainly advise you to transplant Reine Marie Henriette. Plant it upon a pillar in the open and it will grow and flower beautifully. A grand sort to take its place is François Crousse, or Waltham Climber No. 1, or Cheshunt Hybrid. Instead of the Gloire de Dijon you will find Mme. Alfred Carrière a splendid grower. Its flowers are creamy white. Climbing Caroline Testout would make an excellent sort, so also would Climbing Mrs. W. J. Grant. Do not allow the plants to suffer at all for want of moisture during the growing period, and when water is given let it be given copiously. There are no climbing Roses absolutely free of mildew tendencies, but if it be taken in time this pest can be cured. Give the plants a good syringing with sulphide of potassium. You will find the recipe given in our back numbers.

CLIMBERS FOR BRICK WALL (L. N. P.).—You could not do better than plant a mixture of subjects, allowing, perhaps, Roses to predominate. Plant the various varieties about 5 feet to 6 feet apart. We have put an asterisk against such things as grow rapidly, so that you could disperse them at intervals along the wall. A few very beautiful Roses for the purpose are Climbing Belle Siebrecht, *Climbing Caroline Testout, *Climbing Captain Christy, *Rêve d'Or, *Bouquet d'Or, *Celine Forestier, *Wm. Allen Richardson, *Mme. Alfred Carrière, *Gloire de Dijon, *Mme. Berard, Longworth Rambler, *M. Desir, *E. Veyrat Hermanos, *Lady Waterlow, *Mme. Jules Graveaux, *Waltham Climber No. 1, Grüss an Teplitz, *Climbing Kaiserin Augusta Victoria, François Crousse, *Dorothy Perkins, *Field Marshal, and *Duchesse d'Auerstedt. We should omit from your list Clematis Mrs. Cholmondeley and Elsa Spath, and substitute Mme. Edouard André, Nelly Moser, Marcel Moser, Princess of Wales, Lonicera plantieriensis, and L. gigantea should be added, also *Wistaria sinensis, Ceanothus Gloire des Versailles, Forsythia suspensa, and Jasminum primulinum. If when planted there are some bare places very conspicuous plant a few of the best Tea and Hybrid Tea Roses, such as Marie van Houtte, Anna Olivier, Maman Cochet, and Mme. Abel Chatenay. These may be cut away when the other plants have spread well, or may be kept quite low, but they afford a deal of pleasure by their freedom of flowering whilst the stronger things are establishing themselves. It is all moonshine about obtaining the plants from another district; the main thing is to prepare well the soil for their reception. Trench deeply and see that drainage is good, and the plants will grow whether you obtain them locally or go to any well-known firm for them.

Nemo.—The quantity of Roses that you could cultivate in your greenhouse somewhat depends upon what other plants you wish to grow. We should think you could find room for a dozen plants in 6-inch or 7-inch pots. These might be elevated upon inverted pots so as to give them a better chance. As a general rule you should try and afford all plants as much light as possible. Do not allow one to shade the other more than you can help. For this reason we would advise you to plant only three climbers to train on the roof, and these should be kept to two or three rods only. Roses revel in sunlight whether they be indoors or out.

R. Mathews.—We should advise you to mix some clay with the soil you propose to put in the boxes, for Roses like what is termed a holding soil. Your mixture is too light. Rather than plant in boxes, why not take out the clay 2 feet deep and fill up again with the soil you mention, first mixing some clay with it. The Roses would eventually make better plants if thus treated. They will not flower satisfactorily in light soil, for the growths would be soft and would not ripen. If you want large blooms you should grow dwarfs. You cannot get exhibition blooms from climbing Roses. The following will be suitable for your purpose, although we should not recommend them as the best climbing Roses:—Crimson: Reine Marie Henriette. Yellow: Duchesse d'Auerstedt. Pink: Climbing La France. Blush white: Climbing Souvenir de la

Malmaison. Plant Clematises Jackmani (blue), Jackmani alba (white), rubro-violacea (reddish), and Fairy Queen (pinkish).

THE GREENHOUSE.

CORNFLOWERS IN WINTER (L. M.).—It might be possible, with special treatment, to get these in flower during the winter, but the result would hardly be satisfactory. For this purpose seed should be sown in June or early in July, and the seedlings potted off singly or two or three in a pot when they are large enough to handle. They may then be grown on in a cold frame, and should be potted on as they get larger, giving them every encouragement to make good plants before the winter. To bring them on it is necessary to place them in a little heat, giving plenty of air and light. If treated in this manner flowers may be produced, but possibly not so freely as desired.

BEGONIA FAILING (G. Westcott).—We carefully examined the Begonia tuber and the soil without being able to detect any of the tiny worms spoken of by you. It appears to us that the tubers have fallen into a bad state, from what cause it is impossible to say, and the worms have then taken possession as they do in any decomposing material, and that they were not the primary cause of the trouble. The soil seemed very suitable for Begonias. Local matters we must, of course, leave you to detect, but should advise you now that the tubers are dormant to lay them in a shallow box of dry sand, store them somewhere safe from frost, and carefully examine them several times during the winter to see that they keep in good condition. Then repot in spring in some good light compost, when we venture to think, if these various items are carefully attended to, you will not be again troubled in the way you have been.

Ridd.—You can winter the plants of Asparagus Sprengeri in any light position where they are safe from frost, such as in a south window. In the event of very severe frost it is a good plan to remove any especially tender plants from the window and stand them in the middle of the room. This Asparagus is essentially an evergreen, hence it must be kept supplied with a certain amount of water throughout the winter. Repot in some good compost about the month of May next.

GERANIUMS IN WINTER (C. W. C.).—These plants will winter very well in your greenhouse, or even in a frame that is heated. The two chief points to attend to are to keep the house in which they are growing free from frost, and also to give them very little water. The atmosphere, too, must be dry. If the two latter items are not attended to the plants are very liable to damp off. They will go for weeks without water during the winter months. As the cuttings are well rooted you should pot them off at once, putting each rooted cutting into a pot 2½ inches in diameter. In the spring repot into 5-inch or 6-inch diameter pots, in whichever size you prefer them to flower. Why do you not flower them in winter by rooting cuttings in spring? Grow them on during summer in a cold frame. They will make good plants by autumn, and at the approach of cold weather bring them in the greenhouse. Pinch out the flower-buds that show in autumn so that they will not bloom till winter.

FRUIT GARDEN.

MORELLO CHERRIES (E. G. L.).—When Morello Cherries fail to grow satisfactorily against a north wall the prospect is not hopeful for any other fruit trees, as the position is one which this Cherry succeeds in best. The "green sand" would be equally inimical to any other kind of fruit trees, and we are afraid that until means are taken to improve the soil that only very partial success can be looked for. If you can add two barrow loads of turfy loam, with which has been mixed a peck of lime and half a bushel of well-rotted manure, to each tree at the time of planting we think a reasonable measure of success would follow. Sweet Cherries will succeed against a north wall just as well as Morellos should do. Plums do very well on this aspect, but Pears not so well. Black Currants might succeed against the wall, but they would succeed better away from it, in the open quarters of the garden, therefore it would serve no useful purpose to plant them against the wall. Of Sweet Cherries plant Bigarreau de Schreken, May Duke, Frogmore

Bigarreau, Belle de Choisy, White Heart, Black Heart, Governor Wood, Bigarreau Monstreuse, Florence, and Black Tartarian. Of Plums plant Denniston's Superb Gage, The Czar, Belgian Purple, Victoria, Jefferson, Bryanston Gage, Old Green Gage, Reine Claude de Bavay, Coe's Golden Drop, Kirke's, Pond's Seedling, and Monarch; and of Pears plant Beurré Giffard, Williams' Bon Chrétien, Fondante d'Automne, Louise Bonne of Jersey, Marie Louise, Emile d'Heyst, Doyenné du Comice, and Le Lectier.

PLANTING VINES (J. M.).—As you do not require the Grapes until late autumn by all means plant the Vines in an outside border. It is only when Vines are forced so as to have ripe Grapes early that it is necessary to have inside borders. It is essential then so that the temperature of the border shall not be lowered by winter rains. You must be careful to protect the stems of the Vines where they are exposed during the winter months, as severe frosts might injure them. Protection is easily afforded by means of hay-bands or sacking.

SCALE ON PEACH LEAVES (W. James).—The Peach leaves you send are attacked badly by scale and also more or less by mealy bug. You can get rid of the scale by sponging the leaves with warm soft-soapy water, which will loosen the scale insects so that they may be rubbed off. In the course of a few days you should repeat the sponging so as to destroy any young scale insects there may still be on the leaves. To get rid of the mealy bug stronger measures must be resorted to. Use paraffin at the rate of a wineglassful to a pail of soft soap water. Fumigate also with XL All Insecticide twice a week for two or three weeks. Always keep a look out for these pests, and get rid of them before they have time to spread.

FAILURE OF GRAPES (C. P. C.).—We do not think the reason of your Grapes remaining small is due altogether to the dull weather in August, although, of course, if there was a considerable fall in the temperature of the house while the Grapes were fast swelling, the latter would suffer a check. We presume if it had been necessary to do so to maintain the proper temperature at night you would have made use of the hot water apparatus. If you neglected to do this, and the house all at once became cold and remained so, the progress of the fruit would be checked. The real cause, however, is more likely to be found in a want of nourishment in the border. Unless the roots are well supplied with food the Grapes will never be large. When the Vines are bare remove as much surface soil as you can without damaging many roots, and replace with fresh soil containing plenty of farmyard manure. If you care to resort to even stronger measures, dig a trench some 5 feet or 6 feet from the Vine stems, then work away with a fork the old soil until you come to plenty of roots, and replace with fresh rich soil.

Bamboo.—To get rid of mealy bug on your Vines, first scrape off all the loose bark (taking care, of course, not to injure the Vine), for this affords an excellent hiding-place for the bug during winter. Then wash the Vines (taking care not to damage or even touch the buds, or you will have no crop next year) with a solution of paraffin oil or Fir tree oil, which may be obtained from sundriesmen. Or you may add a wineglassful of paraffin to a pailful of warm soft soapy water, and brush the Vines and woodwork with this. In early spring keep a sharp look-out for the insects with a small brush dipped in methylated spirits. A touch with this will kill them. Also use occasionally the XL All Vaporiser. This will prevent their spreading. Early spring, when the Vines are just starting growth, is the time to take these measures. If they get well established, and the Vines are in full leaf, it is impossible to eradicate them.

H. P. Caren.—A good dressing for Vine borders is turfy soil, with which some bone-meal has been mixed. Remove some of the old soil before applying. It should be given when the Vines start into growth. The current year's lateral shoots on Vines ought to be cut back to within two buds, or "eyes," as they are called, of the base. When these buds start into growth retain the shoot which bears a bunch (this can be determined when the shoot is quite young), if both have bunches retain the stronger. The fruit of the Vine is produced on the young shoots; you must therefore cut back to the two lowest buds each of the growths made this year. Next year the buds will burst into growth, and one of these will most probably

bear a bunch. If your Vines are in a cold house, and your Grapes are not ripe until late summer, you may prune in February. If you force the Vines for early Grapes prune a few weeks before the house is started. This pruning must be done every year.

C. M. Playne, West Australia.—Bunches of Grapes of the weight you note are by no means common, and all varieties are not capable of producing bunches so heavy, and those that do are what are termed second best for flavour. Trebbiano (white) and Gros Guillaume (black) are the two largest varieties. It is quite a matter of culture, and where many fail only a few succeed. The bunches must be much reduced, only one or two being left on a cane, and preferably those which are long and have large shoulders. As you say, a bunch 3lb. to 4lb. is a fair weight in an English hot-house and a good bunch is 6lb. There is no inarching or joining together practised. The bunches exhibited in this country rarely go over 6lb., often less, and bunches above that weight are seldom seen.

MISCELLANEOUS.

G. H. Head.—Burnt ashes alone would be beneficial to the root of Salsify, but as regards the burnt earth much depends upon how it was used. Burnt earth in hard lumps is more like gravel; if you can use burnt refuse of any kind that lightens so much the better. Wood ashes, lime, and soot are excellent. We do not advise the use of fresh stable manure in any form, either at the root or in bottom of trenches for these roots, as there is always a tendency for them to fork. It is best to use soil that was deeply dug and well manured for a previous crop, and not sow too early.

BOILER TROUBLE (E. M.).—Sectional boilers are always apt to get deranged because not of solid construction. The one you have has this common defect, which is partly due to the variation in the expanding or contracting of the metal. These boilers are ill adapted for giving quick combustion and heat, being best suited for slow combustion, hence they often fail just when most wanted to give good warmth. All boilers should have good draught, which may be toned or reduced as needed. But these slow burners often need and get a good deal of stoking in a vain effort to induce the fire to burn brighter and thus create more heat, hence over-stoking may in such case cause much harm. If you have in your locality a proper hot water expert, it will be wise to ask him to examine your boiler.

NAMES OF FRUIT.—*C. F. A.*—Apparently Beurré Hardy, but the fruit was half rotten, so we could not tell with certainty. —*P. N. McLaren*—1, Ecklinville Seedling; 2, Pittaston Duchess; 3, Queen Caroline; 4, King of the Pippins; 5, Napoleon; 6, Wellington. —*W. G. Reading*—1, Bergamotte d'Espere; 2, smashed; 3, Beurré Hardy. —*Pennworne*—1, Adams Pearmain; 2 and 3, Wellington; 3, Lady Henniker; 4, Sndringham; 5, Newton Wonder; 6, Belle de Pontoise; 7, Old Hawthornden.

NAMES OF PLANTS.—*W. J. Short.*—Acer Pseudo-platanus purpureum. —*G. Stapleton*—1, Aster polyphyllus; 2, A. Tridacanti; 3, A. diffusus; 4, A. patens; 5, A. diffusus var. horiz. natis; 6, A. ericoides. —*George Wood*—1, Cœlogyne cristata; 2, Oncidium varicosum; 3, Cypripedium, not possible to name without flower; 4, C. barbatum; 5, Platanus, probably nobilis; 6, Lœlia purpurata; 7, Dendrobium Falconeri; 8, D. findlayana; 9, Lycaste Skinneri. It is not possible to be absolutely sure of the actual variety in most cases without seeing the flower, but we feel sure the names given will in most cases be correct. When the plants bloom forward flowers and we will correct any mistake now made. As to treatment, in the first place if you can only maintain 45° to 50° by night you must lower your day temperature; 60° should be the maximum, unless it is with sun-heat, when a few degrees more would do no harm. You should place 1, 2, and 9 at the coolest part, and water should only be given as the plants become dry during the winter months; 3, 4, and 5 require more water, and place them in the most humid part; 6 will require very careful watering, especially if the weather is dull and cold; 8, benefits from a rest after making up its bulbs, by withholding water, only give sufficient to prevent the pseudo-bulbs shrivelling, till the flower-buds are well away; 7 is a most difficult Orchid to grow; at this season an occasional syringing will maintain it in a plump state.

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(Continued from page 311.)

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SOCIETIES.

BOURNEMOUTH CHRYSANTHEMUM SHOW.

THE nineteenth annual exhibition was opened at the Winter Gardens on the 7th inst., and proved to be one of the best held here.

Mr. Vallis of Chippenham easily won premier honours in the open class for thirty-six cut blooms; the Duke of Hamilton (gardener, Mr. J. Stevenson) was second, and the Rev. W. M. Anderson took third prize.

Messrs. George Watts and Sons, Palace Nurseries, Bournemouth, were a good first in the class for a group of Chrysanthemums and foliage plants; G. J. Fenwick, Esq. (gardener, Mr. H. Slark) won second prize, and Mr. Haskins the third award.

For six vases of blooms the Duke of Hamilton was first, F. E. Telfer, Esq. (gardener, Mr. G. Mantel) second, and Colonel Churchill (gardener, Mr. W. Squire) third.

In the vase collection of blooms E. Howard May, Esq. (gardener, Mr. C. Barrett) was easily first, Colonel Churchill and T. J. Hankinson, Esq., being second and third respectively. E. Howard May, Esq., also won first prizes in several other classes, including a silver challenge trophy for a splendid group of Chrysanthemums.

A silver cup was offered for a vase of nine blooms on long stems. This was competed for keenly, some lovely blooms being staged, Mr. Rowe winning with a magnificent vase of F. S. Vallis.

Table decorations, bouquets, sprays, trade exhibits, and fruit and vegetables all combined to form one of the most effective shows ever held in Bournemouth.

CARDIFF CHRYSANTHEMUM SHOW.

In the Park Hall the annual autumn show of the Cardiff Horticultural Society was held on the 8th and 9th inst. Competition was keen and the quality good.

OPEN CLASSES.—CUT BLOOMS.

The leading class was for eight varieties, Japanese, three blooms of each, arranged in vases. The premier prize was a challenge cup and £5, which was won by Mr. G. W. Drake in 1903 and 1904, and, as he failed this time to annex it finally, the interest in the next season's display is increased. Six competed, making a fine display. The premier award fell to Mr. J. Duff, gardener to Mrs. Williams, Bryn Glas, Newport, for an even set of high quality blooms. Mr. F. May, gardener to H. O. Lord, Esq., Charlton Kings, Gloucester, was a close second, and Mr. W. G. Drake, Cathay's Terrace, Cardiff, third with an even set.

For twenty-four incurved blooms, in not less than twelve varieties, three competed. Mr. Drake, with an even stand of full-sized blooms, secured the leading place; Mr. H. Townsend, gardener to H. Pitt, Esq., Abergavenny, second with larger but rougher blooms; third, Mr. May.

In the class for twelve Japanese, distinct, six competed. Mr. Iggulden, Frome, with a heavy set won first place. Mr. J. Duff was second, and Mr. H. Townsend a close third.

The best hand bouquet of Chrysanthemums was contributed by Mr. Baggesen, Cardiff; second, Mr. W. Treseder.

Wreaths and crosses of Chrysanthemums are always a strong feature at this show. For the former there was a keen contest. Messrs. Ellis and Son, Cambridge Road, Cardiff, were first. The best ordinary wreath was that from Mr. W. Treseder, a magnificent arrangement of choice flowers. Bridal bouquets were very fine, Mr. W. Treseder easily winning the first prize.

For a group of Chrysanthemums, arranged with foliage plants in a space of 60 square feet, Mr. W. Treseder was the only exhibitor. He arranged a grand circular display, and was awarded the first prize.

AMATEURS AND GENTLEMEN'S GARDENERS.

Single-flowered varieties are always a feature here. Mr. Bindon, with a specimen plant of Captain Allsopp fully 5 feet in diameter, freely flowered, won the premier place easily.

For a group of Chrysanthemums occupying a space of 50 square feet there were three competitors. Mr. W. Hatherdale, 53, Shakespeare Street, Cardiff, was first. For a group of miscellaneous plants, arranged for effect in a space of 40 square feet, Mr. D. Macintyre, gardener to Lady Hill, Rookwood, was easily first.

Cut blooms in this division were a strong feature. For twenty-four Japanese, in not less than eighteen varieties, there were five competitors. Mr. J. J. Graham, gardener to A. T. Stephenson, Esq., Sully, was first; second, Mr. E. Parsons, gardener to E. Poole, Esq., Cathedral Road, Cardiff.

Eleven competed in the class for twelve Japanese, the best set coming from Mr. W. Webber, gardener to F. Premavasi, Esq., Penylan; Mr. Woodward, gardener to E. Watts, Esq., Bissale, a close second.

In a similar class for twelve incurved, Mr. H. Baker, gardener to O. D. J. Cropper, Esq., Portskewitt, was first with large, even blooms.

In a purely amateurs' class for twelve Japanese, in which the Empire Challenge Cup was offered, six competed. Mr. H. Edwards, 141, Severn Road, Cardiff, won with a fine set. For five blooms, any one white Japanese variety, Mr. Edwards, with fairly good blooms of Mrs. J. Dunn, was first. In a similar class for any one variety

except white, Mr. Edwards, with Edith Fuller, was the only competitor, securing the award of first.

For six distinct single-flowered varieties, three sprays of each, there were six competitors. Mr. Bindon, as usual, won with a magnificent set. For the best-arranged vase of single-flowered varieties Mr. Bindon had the best of six entries.

NON-COMPETITIVE EXHIBITS.

These were numerous, and added to the attraction of the show. Messrs. Sutton and Sons, Reading, had a fine display of Potatoes, including the leading varieties, to which a gold medal was awarded. Messrs. J. Cypher and Son, Cheltenham, were awarded a gold medal for an exceedingly fine group of Orchids. Mr. J. J. Neale, Lynwood Park, Penarth, had also an interesting group of Orchids, to which a silver medal was awarded, a similar award going to Mr. Basham, Bassaleg Nurseries, for a fine collection of Apples and Pears.

PARIS CHRYSANTHEMUM SHOW.

On the 4th inst. the National Horticultural Society of France held its autumn show in the greenhouses on the Cours la Reine, Paris, when there was a grand display of Chrysanthemums, fruit, and vegetables. A deputation from the National Chrysanthemum Society, consisting of Messrs. Thomas Bevan, Harman Payne, Percy Cragg, and J. H. Runchman attended and formed part of the jury appointed to award the prizes. A large number of well-known nurserymen and gardeners from all parts of the Continent attended, and the meeting was rendered of still further importance by the fact that the French National Chrysanthemum Society and the French Pomological Society also held meetings in conjunction with this show. On the morning of the show M. Loubet, the President of the French Republic, paid a visit. A banquet was given to the jury at midday, and a very brilliant gathering it was, there being about 200 persons present. The show was so great in extent and the exhibitors were so numerous that we can only briefly review some of the most salient features.

Messrs. Vilmorin-Andrieux and Co. won the Grand Prize of Honour for an immense display of Chrysanthemums, vegetables, &c., exhibited in different groups in the show. In Chrysanthemums alone the exhibit of Messrs. Vilmorin-Andrieux and Co. was considerably beyond anything else in extent in the show. The Egyptian, dark dull crimson, is more appreciated in Paris than in London, for it was freely shown in many exhibits. Before leaving this group special reference must be made of Mousméa, a lovely Japanese of fine form, large in size, and of a pure shade of delicate soft lilac-mauve, with a silvery reverse.

Other prizes of honour, mostly consisting of works of art, were accorded to M. Nonin for his collection of Chrysanthemums in pots, to M. Rosette for a large collection of cut blooms, to Messrs. Vilmorin-Andrieux and Co. for plants in pots, to M. Oudot for cut blooms, and to the Ecole Horticole du Plessis Piquet. In other sections Messrs. Traffaut and Son were also awarded a prize of honour for greenhouse and foliage plants, to M. C. Maron for Orchids, to M. Debric for table decorations, to Messrs. Croux and Son for fruit, to Messrs. Salomon and Co. for Grapes, to M. Ledoux for baskets of fruits, to M. Nombrot-Bruneau for fruit trees, to Messrs. Moser and Son for Aucuba, and to Messrs. Vilmorin for their grand display of vegetables. Many other prizes of medals in gold, silver-gilt, silver, and bronze were awarded in the numerous sections provided for by the schedule.

M. Auguste Nonin had a remarkably fine display, and the quality was uniformly good. M. Ant. Marmontel was one of the best; Amateur Rosière, an incurved Japanese of medium size, pure golden yellow, was another. Satin Rose, medium size, but a pretty shade of deep rose-coloured pink, was also most effective. Yolande de Pins is a reflexing Japanese with rather broad florets, colour soft pale blush. Miss Ellen Wilmott is a new incurving white Japanese of a pure silvery white. In this collection we noticed several new green-coloured novelties, viz., Verte Poitevine et La Seine.

M. Rosette was the leading exhibitor in the class for 150 varieties of cut blooms, for which he was awarded a work of art. Particularly fine was Comtesse de France, a curious large-flowered Anemone with silvery white florets and a pale lilac centre tinged with gold.

Messrs. Leveque and Son were large exhibitors of cut blooms of Chrysanthemums and Carnations, for which they received several awards. We noticed Le Peyron, a fine new yellow Japanese novelty; M. Ant. Marmontel, a very pretty Japanese of great size, colour a bright pinkish amaranth, passing to white in the centre.

For seventy-five cut blooms in distinct varieties M. Oudot came first.

M. Georges Magne showed several groups of plants in pots.

M. Cavour had a large exhibit of cut blooms and grafted plants. Emma Bonnefont is a large Japanese variety of a pretty shade of soft salmon rose.

Another important exhibitor was M. A. Pecquenard, who had a fine lot. His group was composed of seventy-five varieties of plants in pots, all big, massive blooms, of great size and substance. Mme. Marguerite de Mons is one of the biggest we have ever seen, a fine white, deep in build, and very compact.

Fruit is always a most important feature of the Paris autumn show. Apples, Pears, Grapes, &c., are shown in immense collections, and the varieties are almost incredibly extensive. The second Grand Prize of Honour, which was offered by the Minister of Public Instruction, a work of art, was awarded to M. Nombrot-Bruneau for a splendid collection of fruit trees and fruits.

Messrs. Croux et fils exhibited a large and varied collection of fruit, for which a prize of honour was awarded.

In the room specially set apart for Grapes there were several important exhibits. Messrs. Salmon and Son had a large collection of different varieties of Vines in pots and Grapes in bunches. M. H. Whit had a similar collection, and Messrs. Anatole Cordonnier and Son, who also showed Chrysanthemums, had some fine bunches.

NEW CHRYSANTHEMUMS.

These were shown by M. Ernest Calvat, Rozamboucharlat, Aug. Nonin, Marquis de Pins, Cavour, Dolbois, Heraud, Vilmorin-Andrieux and Co., Durand, Liger, Ligneau, and Couloum. Of these our chief interest was centred in the display made by M. Calvat, who had the Prize of Honour, a work of art, and a gold medal for twenty-two new varieties, which he exhibited in several blooms of each variety in big examples in his accustomed style. A large number of first-class certificates were awarded to the above-named exhibitors for the numerous seedlings they exhibited.

THE HORTICULTURAL CLUB.

THE usual monthly dinner of this club was held on Tuesday, the 8th inst., at the Hotel Windsor, under the presidency of Sir John Llewellyn, Bart., when a good attendance of members and guests were subsequently favoured with a most interesting address on "The Influence of Flowers Amongst the Poor," delivered by the Rev. Canon Horsley. Canon Horsley has for many years devoted his energies and influence to brightening the homes of the poorer classes by inculcating a taste for flowers, and with the most satisfactory results, since it was proved that when by means of competitive exhibits the necessity of cleanliness and care in the culture of the flowers was recognised, this salutary lesson spread from the plants themselves to the dwellings and personal habits of the humble cultivators. Furthermore, it was seen that the taste for gardening frequently formed a hobby which was the one thing needful to kindle a spark of interest in the wonders of Nature, and that frequently the money, which was previously squandered in drink, became devoted to this hobby, to the consequent reformation of many and the greater comfort of their families. Some most interesting anecdotes were related of the really marvellous way in which the poor, despite the terrible handicaps of lack of light, space, and indeed apparently of every requisite of successful floriculture, managed by concentration of their energy and persistent care to produce specimens which shamed the amateur productions of far more favoured growers. Our point seemed, indeed, to be absolutely established, and that is that when once the taste for floriculture became implanted sobriety and cleanly habits followed, and it is in this special direction that the influence of flowers amongst the poor proved so beneficial. Of course in most instances the first essential step was the gratis provision of plants or seeds as a start, coupled with the offering of prizes for subsequent successful culture, and although the distribution of surplus plants by nurserymen, and of clearance plants from our public parks by the authorities, goes far in this direction, it was one of Canon Horsley's chief objects in his address to ask those present to aid in this good work as far as possible. The question of open spaces was, of course, a material one in this connexion, and though an immense deal has been done in this way much remained to be done, as the ever-spreading metropolis and other large cities tended more and more to become congested as building went on.

In the subsequent discussion, Sir J. Llewellyn and Messrs. Harry Veitch, Shea, Asbee, and Read participated, Sir J. Llewellyn particularly referring to the elevating influence of natural hobbies generally, while Mr. Harry Veitch alluded to the admirable behaviour of factory girls and others of the labouring classes who had been admitted to his gardens and scrupulously respected the hospitality extended to them. Mr. Asbee referred especially to the market aspect of the matter and the enormous extension in the trade for cheap plants among the poor.

A hearty vote of thanks was accorded to Canon Horsley for his interesting "talk," as he termed it, and in concluding the meeting some touching references were made to the loss which the club and horticulture generally had recently suffered by the death of the veteran horticulturist, the Rev. H. H. D'Ombrain, to whose widow and family the club were conveying their deepest sympathy.

CROYDON CHRYSANTHEMUM SHOW.

THOUGH not extensive, the show held on the 7th and 8th inst. was really good. A remarkable feature was that all the blooms were shown in vases, no boards being allowed.

The premier class, which was for fifteen Japanese and fifteen incurved blooms, for which a challenge trophy, valued at 25 guineas, and £5 were offered, brought three competitors, all of whom showed very fine blooms. The first prize went to Mr. F. Bible, gardener to H.S.H. Prince Hatzfeldt, Chippenham; second, Mr. W. Mease, gardener to A. Tate, Esq., Leatherhead.

For twenty blooms, in four distinct varieties, Mr. Bible was again first; second, Mr. C. J. Salter, gardener to Mrs. Haywood, Reigate.

For five blooms of any Japanese variety, Mr. G. Edwards, Shirley, was first with fine blooms of Mrs. Vallis; second, Mr. Gooch, gardener to T. Wickham Jones, Esq., South Norwood.

For five blooms of any incurved variety, Mr. G. Lemon, gardener to R. J. Akers, Esq., Thornton Heath, was first with blooms of C. H. Curtis.

For ten Japanese blooms, one or more varieties, Mr. W. Collins, gardener to R. V. Barrow, Esq., J.P., was first with fine blooms of F. S. Vallis and H. Perkins.

For five incurved blooms, one or more varieties, Mr. A. Peat, gardener to Miss E. Jackson, Croydon, was first.

For ten incurved blooms, Mr. G. Prebble, gardener to E. M. Preston, Esq., Shirley, was first.

For five Japanese blooms, Mr. Gooch was first with a fine vase of Mrs. Vallis.

In the class for a group of pot plants the exhibits were very good, Mr. W. Collins, gardener to R. V. Barrow, Esq., J.P., taking first with plants showing splendid foliage and large blooms. Mr. E. Puxted, gardener to S. Taylor, Esq., Croydon, who was awarded the second prize, also had a good group of plants. The above were in the class confined to the district.

In the open class for a group of plants with foliage, Mr. W. Bentley, gardener to G. Curling, Esq., Addiscombe, took the first prize.

For four pot plants Mr. A. Peat was first. For table decorations Mrs. A. C. Robinson, Carshalton, was first with a pretty arrangement. Some very fine plants of single varieties were shown by Mr. E. Cooper, gardener to J. T. Le Mare, Esq., Croydon.

AMATEURS.

The amateur classes were, in most instances, well filled and some fine blooms shown. In the class for nine table plants, Mr. C. Lane, gardener to E. H. Coles, Esq., Caterham, took first prize with remarkably well-finished plants. For three plants of winter-flowering Begonias, Mr. G. Lewry, gardener to Miss Blake, Croydon, took the first prize.

Mr. Bond, gardener to the Mayor of Croydon, was awarded a silver medal for fine plants of this Begonia. Mr. T. Butcher, South Norwood, exhibited floral arrangements (silver medal). Messrs. George Bunyard and Co., Maidstone, put up 100 dishes of Apples and Pears, all of very high quality (silver medal).

Fruit and vegetables were well shown. Here we noted Mr. Bible's name prominent as a prizewinner. The show all round was well arranged, and reflected credit on the secretary and managing committee.

WEST LONDON HORTICULTURAL SOCIETY.

THE twenty-first annual Chrysanthemum show of this society was held in the Town Hall, Hammersmith, on the 2nd inst. For a group of Chrysanthemums Mr. F. Blackith, gardener to Mrs. Ford, Park Side, Ravenscourt Park, was first.

For six vases, three blooms in a vase (amateurs), the premier position was won by Mr. G. Tolton, Albion Gardens, with a meritorious display. In the open class Mr. F. Blackith was the prizewinner with fine blooms. Mr. E. Wildman, Twickenham, was also a successful exhibitor in several cut bloom classes; indeed, Messrs. Blackith, Tolton, and Wildman largely divided the honours in the cut bloom classes. Mr. Blackith gained the special prize, offered by H. Falcke, Esq., for the premier bloom in the show with a fine flower of Bessie Godfrey. This exhibitor also gained the National Chrysanthemum Society's bronze medal for the finest competition exhibit in the show. Mr. G. Tolton gained a silver cup as the amateur obtaining most points.

Some excellent non-competitive exhibits were shown by Mr. George Reynolds, gardener to Leopold de Rothschild, Esq., Gunnersbury; Mr. W. Dowel, Hammersmith; the Mayor of Hammersmith; Mr. F. Blackith; and Messrs. M. Rains and Co., Chiswick.

SCOTTISH HORTICULTURAL SOCIETIES.

DUMFRIESHIRE AND GALLOWAY HORTICULTURAL.—This society held its third Chrysanthemum show in the Drill Hall, Dumfries, on the 8th inst. The show was one which was highly creditable to the district, and the best of its kind yet held in the locality. In the open class for a circular group, Chrysanthemums to be the leading feature, Messrs. James Service and Sons were awarded a first prize. Messrs. Service were also first for stove and greenhouse plants and table plants. In the gardeners' classes the pot plants showed a marked advance, and with these Mr. J. Henderson, Elmbank Gardens, Dumfries, practically swept the boards for Chrysanthemums. The best Chrysanthemum plant in the show was one of his, a single white, Ewan Cameron. Mr. C. M'iver, Lincluden Gardens, was first for stove and greenhouse and table plants. Mr. J. M. Stewart, Mollan Gardens, was first for Palms and Lily of the Valley. Cut blooms were excellent, and the competition much closer than in former years. In the open classes, Messrs. J. Service and Sons were first for twenty-four, twelve, and six Japanese, the second prizes in the same classes being won by Mr. A. Duff, Myrtle Cottage, Dumfries, an amateur, who made an exceedingly good show. In the gardeners' classes much interest centred in that for twelve Japanese, for which, in addition to money prizes, there was offered the Dumfries Town Council Challenge Cup. This was won by Mr. J. Houston, Crichton Gardens. Mr. Duff was first for nine and six Japanese, and for six of any one variety. The cup offered by Messrs. James Service and Sons for three white and three yellow brought a strong competition; it was awarded to Mr. James Henderson. Fruit was good, the leading winners being Messrs. J. M. Stewart, J. Duff, and James Culton, Dildaw Gardens. The leading winners for vegetables were Messrs. J. M. Stewart, J. Smith (Ernespie Gardens), J. Duff, J. Chalmers (Steilston Gardens), and J. Henderson. Some tasteful table decorations were shown, the first prize going to Miss Service, Janefield. For non-competitive exhibits certificates were awarded to Messrs. T. Kennedy and Co., Messrs. James Service and Sons, and Mr. W. Taylor, all of Dumfries. A certificate was awarded to Mr. J. Duff for a new dessert Apple called Threave Castle.

THE HORT. CO.'S MONTHLY OFFER

(Condensed).

For names of varieties see our advert. page of THE GARDEN for October 21st.

ROSES, 150,000.

We invite all to come and see our magnificent stock. **Cheshire grown, robust plants,** masses of **fibrous roots.** **Largest selection,** not Continental weaklings, but sturdy **home-grown,** pronounced by **Rose Experts** the **finest ever seen.** Our Roses form a mass of fibrous roots, are grown in exposed position, are not weakened with stimulants to produce exhibition flowers, and are sure to do well.



SEND FOR A SAMPLE DOZEN
AND JUDGE. ALL ON BRIAR,
THE HARDEST STOCK.

SAMPLE OF THOUSANDS OF TESTIMONIALS:—"Blackhill, 13th September, 1905.—Your Roses must suit this locality, as I have never had any do so well."—R.E.K., Esq. "Moss Side, 14th September, 1905.—Am more than pleased with the Roses, never had such value in plants from anywhere before."—W.S., Esq.

CARRIAGE PAID ON 12 or more Roses.

N.B.—PLEASE STATE NEAREST RAILWAY STATION.

13 DWARF H.P. ROSES. Set 1, 2, 3, or 4, for 6/-	26 DWARF H.P. ROSES. Any 2 sets for 11/-
39 DWARF H.P. ROSES. Any 3 sets for 16/6	52 DWARF H.P. ROSES. The 4 sets for 21/-
13 DARK H.P. ROSES. Set 5 for 6/-	FRAU K. DRUSCHKE. 9d. & 1/- each, 7/6 & 9/- doz.
13 DWARF H.T. ROSES. Set 7 or 8 for 9/-	26 DWARF H.T. ROSES. Sets 7 and 8 for 17/-
13 DWARF TEA ROSES. Set 9 or 10 for 9/-	26 DWARF TEA ROSES. Sets 9 and 10 for 17/-
13 WICHURIANA ROSES. Set 11 for 9/-	13 SUPERB CLIMBING ROSES. Set 12 for 10/-
13 HARDY CLIMB. ROSES. Set 13, 6/-	13 CLIMB. CLUSTER ROSES. Set 14 for 10/6
12 DWARF POLYANTHA ROSES. Set 15 for 9/-	DOROTHY PERKINS, 1/- & 1/6 ea., 10/- & 15/- doz.
13 CHINA ROSES. Set 16 for 6/6	13 PENZANCE BRIARS. Set 17 for 7/6
13 JAPANESE ROSES. Set 18 for 10/-	13 MOSS ROSES, all different, 7/6
SWEET BRIARS. 3/6 doz.; 25/- per 100.	AUSTRIAN BRIARS in 4 vars., 7/6 doz.
DWARF TEAS in pots, all different, 15/- doz.	CLIMB. TEAS in pots, all different, 15/- doz.
CLEMATIS, finest named large flowered vars. 12 all different, 15/-	12 EVERGREEN SHRUBS for window boxes, etc., 6/-
FLOWERING SHRUBS in 12 kinds, 4/6	12 POLYANTHUS, our Giant Strain, 1/9 doz.
HARDY CLIMB. SHRUBS. 12 kinds, 6/-	PANSIES, Giant Blotched, 1/9 doz.; 10/- per 100.
AURICULAS, Alpine, very choice, 2/- doz.	12 VIOLAS, all different, 1/9
PRIMROSE, White Harbinger, 1/9 doz.; 10/- per 100.	

Owing to the increasing demand for our home-grown Cheshire Roses, and the adaptability of our soil and climate for the production of vigorous hardy plants, which succeed where others fail, we have recently purchased an adjoining freehold farm of nearly double the acreage of our present Nurseries, which we purpose devoting almost entirely to this favourite flower.

For full descriptions of ROSES, BULBS of really FINEST QUALITY, HARDY CLIMBERS, SHRUBS, FRUIT TREES, etc., see our

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THE HORTICULTURAL CO.

Rose Growers and Specialists,

(No. 12) CHEADLE-HULME, Cheshire.

ROSES AND FRUIT TREES.

Early planting is the secret of success, and by placing orders at once planters will secure the finest selection and early delivery.

SPECIAL CASH OFFER.

Orders of £1 and over are packed free, and carriage paid to nearest railway station for cash with order.

ROSES.

Grand Stuff, Strong, and Well-Rooted.

Dwarf Bushes, H. P. ...	6/- per doz.; 40/- per 100.
do. Teas and H. T.'s ...	10/- per doz.; 75/- per 100.
Standards and half-standards H. P. ...	15/- per doz.; 120/- per 100.
do. Teas and H. T.'s ...	18/- per doz.; 140/- per 100.
Climbers ...	10/- per doz.; 75/- per 100.
do. extra vigorous, 8ft. to 10ft. ...	18/- per doz.; 120/- per 100.

The above specially low quotations are for our selection from the leading varieties in cultivation, and we shall be glad to send list to intending buyers. Better plants are unobtainable. Delivery in rotation after 14th October.

FRUIT TREES

of the very highest quality as supplied during the past 25 years.

The best 12 Apples in cultivation, 3-year fruiting Pyramids or Bushes, or half-standards, for 1 Guinea; Trained Trees, 30/-; Orchard Standards, 25/-.
The best 12 Pears, Pyramids, 21/-; Trained, 35/-; Cordons, 21/-.
The best 12 Plums, Pyramids, 21/-; Trained, 35/-.
The best 6 Cherries (2 of each), Pyramids, 21/-; Orchard Standards, 25/-; Trained, 35/-.
Gooseberries and Currants, 3/6 per doz.; 25/- per 100; 3-year.
Superlative Raspberries, best variety in cultivation, 8/- per 100; selected 12/- per 100.
Logan Berries, grand new fruit, very strong plants, 1/6 each; 12/- per doz.

Descriptive catalogue and every information to intending buyers.

The Barnham Nurseries have been established 25 years, and the attention of old customers is called to the fact that the name has been altered from S. S. MARSHALL, LTD., to THE BARNHAM NURSERIES, LTD.

Large Stocks of Shrubs, Herbaceous Plants and Climbers to offer. Catalogues free.

THE BARNHAM NURSERIES, Ltd., BARNHAM JUNCTION, SUSSEX.

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150 ACRES OF NURSERY STOCK to select from.
Van Loads Delivered Free within 20 miles.

GOLDEN YEWS, BOX IN VARIETY, LAURELS,
RHODODENDRONS, CONIFERS, FOREST TREES
IN VARIETY.

CATALOGUES FREE ON APPLICATION.

All to gather.

All together.

How doth the Busy Bees

Their trade increase each shining
minute?

By selling Bulbs and Peas

So cheap and good, they're bound
to win it.

Snowdrops ...	12 sorts, 3d. to 2/- per doz.
Crocus ...	70 " 3d. " 15/- " "
Hyacinths ...	100 " 1/3 " 10/- " "
Gladiolus ...	60 " 4d. " 24/- " "
Daffodils ...	250 " 3 for 1d. to 40/- each.
Tulips ...	300 " 2 " 1d. " 45/- " "
Liliums ...	100 " 2d. each " 10/6 " "

The Co-operative Bees, Ltd.,
2, Wapping Buildings, Liverpool.

PLAIN TRUTHS FOR BULB BUYERS

This is a free country, and you can buy bulbs where you like. What we want you to note, however, is that no one can serve you better than we can. Why is this? Because we have made a lifetime study of bulbs, and we always personally select our bulbs in Holland and elsewhere during the growing season. Consequently, we know the bulbs are absolutely right. Further, we buy for cash, take no risks, and make no bad debts. We constantly aim at one thing: High quality combined with reasonable price. Please note that we do not sell low grade stuff and have no intention of competing with those who do. Another point worth remembering is, that whether an order amounts to 2s. 6d. or £100, we give both equal attention and despatch immediately. So much for general principles, now for actual prices.

ANEMONES	Per doz.	Per 100
Single blue, crimson, white, scarlet, separate colours ...	0 6	2 6

CROCUS	Per 100	Per 1000
1st size giant bulbs, 6 vars. ...	1 9	15 0

DAFFODILS (see Narcissus below).

GLADIOLUS	Per doz.	Per 100
The Bride ...	0 6	4 0

HYACINTHS	Per doz.	Per 100
Equal quantities, red, white, and blue, packed separately. ...	4 0	27 6
Exhibition bulbs, extra size ...	3 0	21 0
1st size, very large ...	2 0	15 0
2nd size, fine bulbs ...	1 6	10 0
3rd size, very good ...		

IRIS	Per 100	Per 1000
Spanish, giant bulbs ...	1 6	12 6
Spanish, mixed ...	1 0	8 0
English, giant bulbs ...	3 6	30 0

LILIES	Per doz.	Per 100
Candidums, giant bulbs ...	3 0	21 0
Tiger Lily ...	1 0	7 0
Lily of the Valley, finest Berlin Crowns ...	0 8	4 6

NARCISSUS AND DAFFODILS	Per doz.	Per 100
Extra selected. All first size. ...		
Albo pleno ...	0 4	2 3
Barri conspicuus ...	0 6	2 6
Cynosure ...	0 6	2 6
Emperor ...	0 10	6 0
Empress ...	1 0	6 6
Figaro ...	0 4	2 3
Golden Spur ...	0 10	6 0
Horsfield ...	0 10	6 0
Incomparabilis, double ...	0 8	3 6
Orange Phoenix ...	0 8	4 0
Ornatus ...	0 4	2 3
Poeticus ...	0 3	1 6
Princeps ...	0 4	2 6
Polyanthus, mixed ...	0 8	4 0
Single Jonquils ...	0 4	2 0
(Campernelle) ...	0 6	2 6
Sir Watkin ...	0 10	6 0
Stella ...	0 4	2 3
Van Sion, double Daf. ...	0 8	4 0

SNOWDROPS	Per doz.	Per 100
All first size and extra quality. ...		
Single ...	0 4	2 6
Double ...	0 6	3 6
Giant Elwesii ...	0 6	3 0

TULIPS	Per doz.	Per 100
Single mixed, very best ...	0 6	3 0
Double mixed, very best ...	0 8	3 6
Single, 10 best named sorts ...	0 8	4 0
Double, 10 best named sorts ...	0 9	4 6
Parrot Tulips, very fine ...	0 6	3 0

21/- OUR GIANT BOX OF 21/- GIANT BULBS

The cheapest lot ever offered for outdoor culture. Contains 1,600 bulbs for one guinea (21s. nett); or 4 cases, 11s.; or 2 cases, 5s. 9d. Packing and carriage FREE. The Giant Box contains:—

150 Anemones	100 Jonquils	50 Tulips, single
200 Crocus, 3 vars.	100 Muscari	mixed, and 50
50 Hyacinths	200 Narcissus, 10 var.	double mixed
250 Iris, mixed	100 Ranunculus	50 Tulips,
100 Ixia	100 Triteleias	Parrot, mixed
		100 Sparaxis.

WHAT OTHERS HAVE TOLD US

We have received many enthusiastic letters of praise, of which we quote two by way of example.

E. K. WILSON, Esq., Send Hill House, Surrey, writes: "I appreciate the liberal terms you have given me, and if these bulbs turn out as well as those I had previously from you, I shall be more than pleased." A. WILLMORE, Esq., 150, Purves Road, London, W., writes: "The bulbs I bought of you last October were very satisfactory. Notwithstanding the disadvantages of soil, position, and general conditions of a London garden, the Daffodils were perfect specimens of bloom, both as to line, size, and colour."

PLEASE TAKE SPECIAL NOTE

that full Rose or Fruit Tree Lists as offered in our last week's announcement will be sent to all applicants, and that we shall be pleased to execute orders on the terms quoted.

**FREDERICK CARTER
& SONS,
WOKING**
FULL BULB LISTS SENT POST FREE

SCOTTISH HORTICULTURAL ASSOCIATION.—The usual monthly meeting of this association was held in Edinburgh on the evening of the 7th inst. There was a good attendance, presided over by Mr. J. W. McHattie, president of the association. The address for the evening was given by Mr. Thomas Adams, secretary of the Garden City Association, his subject being "Garden Cities and Gardening." Although Mr. Adams dealt with his subject in a similar manner to that in which the case for garden cities is stated by advocates of that important movement, his address was exceedingly interesting to the meeting of horticulturists. There was, he stated, good prospects of a garden city upon similar lines to the one at Hitchin being erected in Scotland. Mr. Adams illustrated his subject with limelight illustrations, and at the close was warmly thanked for his lecture.

DUNDEE HORTICULTURAL ASSOCIATION.—The usual monthly meeting of this association was held in the Technical Institute on the 7th inst., the president, Mr. William Grant, Fernhall, occupying the chair. The evening was devoted to answering several questions asked by members, and this "Question Night," as it was called, evoked a good deal of interest, and proved a pleasant variety from the ordinary run of papers read at the meeting. The first question was: "What constitutes a hardy herbaceous plant?" Mr. Thomas Butchart being down on the card as questioner. Much difference of opinion was expressed, it being, however, considered mainly a question of climate and weather, although several other factors were spoken of. Mr. William Christison asked: "What is the best means of preserving Celery as late as possible?" and an interesting discussion followed. The concluding question, put by Mr. W. Nicoll, was: "What soil is most suitable for Parsnips and Beet?" A deep and free soil was recommended, deep trenching to be practised. Mr. W. Grant, Fernhall, showed green Peas in pod, this being an unusual thing so late in the season here.

KIRKCALDY.—This society held its fourth annual show in the Adam Smith Hall, Kirkcaldy, on the 10th inst. There was a large attendance at the opening ceremony, which was performed by Lady Helen Munro-Ferguson. The show all over was one of the finest held by the society. As usual, much interest was taken in the class for six vases of Chrysanthemum blooms, for which Sir Michael Nairn, Bart., gives a cup. For the third year in succession it was won by Mr. D. McLean, gardener to Mr. Munro-Ferguson, Raith. An equal interest was taken in the class for two vases of Chrysanthemums grown by amateurs, the award for this being the Corporation Medal. This was won by Dr. Dawson with good blooms. The competition in other classes was good.

BORDER COUNTIES DISTRICT.—This society, which has only been a short time in existence, but which has been very successful, held its show this year in the Volunteer Hall, Galashiels, opening on the 10th inst., and continuing over the following day. For the group of plants, Chrysanthemums to be the leading feature, there was a good competition, and the first prize was awarded to Mr. W. Govanlock, Kingsknowes, Galashiels. In the other Chrysanthemum plant classes Mr. Govanlock was the most successful competitor. Mr. Hill was first for foliage plants and table plants. The cut bloom classes were well contested, and some fine blooms were included among those in practically all the exhibits. Mr. Govanlock led in the class for vases, and in some other classes. The fruit classes were not numerous, but some excellent Grapes and Apples were shown. Mr. D. Rhind winning with good Grapes, and Messrs. A. Bruce and W. Govanlock being first in the Apple classes. Vegetables were also good, the first prize for the collection going to Mr. J. M. Turner. The amateurs' classes were generally good and well contested.

BLAIRGOWRIE AND RATRAY.—The second Chrysanthemum show of the Blairgowrie and Ratray Horticultural Society was held in the Public Hall, Blairgowrie, on the 9th inst. The show was opened by Colonel Richardson of Ballathie, who congratulated the members upon the fine show, and spoke of the great improvement of the Chrysanthemum within recent years. The quality of the exhibits was, as a whole, of a high order, and the cut blooms deserve special mention. The pot plants were also of high quality, and the vegetables were remarkably fine. The list of prizewinners would take up too much space, but mention may be made of the table from the gardens of Colonel Richardson of Ballathie, which reflected credit upon Mr. J. Davis, the gardener. Special note may also be made of the fine blooms of new and old varieties of Chrysanthemums shown by Mr. Collie, gardener to Miss Crum Ewing, Dumkillobo.

SHEFFIELD CHRYSANTHEMUM SHOW.

In the Corn Exchange the annual autumn show was held on the 10th and 11th inst., and was quite one of the best of the many good shows held by this society. One secret of the success of this society is the offering of such liberal prizes. Competition was exceedingly keen, especially in the open classes, while the quality has not been excelled this season. The society has an excellent committee, ably led by their courteous secretary, Mr. M. H. Willford.

OPEN CLASSES.—CUT BLOOMS.

Much interest was centred in the Lord Mayor's Vase class, which was for eight varieties of Japanese, three blooms of each, with Chrysanthemum foliage only. Four competed, making a fine display. Mr. C. Crooks, gardener to Lady Hindlip, Heder House, Droitwich, was first with an exceedingly fine lot. Mr. A. Chandler, gardener to A. James, Esq., Cotton House, Rugby, was second with a fine set; third, Mr. H. S. Foster, gardener to F. E. Muntz, Esq., Umberslade Hall, Birmingham.

For twenty-four Japanese in not less than eighteen varieties, not more than two blooms of any one variety, Mr. Crooks again secured the leading position; Mr. Chandler was second.

In the class for twelve Japanese, distinct, there were six competitors, Mr. Crooks once more was invincible with typical blooms of the finest exhibition varieties. Mr. A. Alderman, gardener to J. D. Ellis, Esq., Sparkes House, Workshop, second.

Incurved blooms were splendidly shown, the date being right for their full development. For twenty-four in not less than eighteen varieties, Mr. W. G. Drake, 44, Cathay's Terrace, Cardiff, succeeded in beating his hitherto invincible rival Mr. W. Higgs, gardener to J. B. Hankey, Esq., Fetcham Park, Leatherhead. Mr. Higgs had not finished his blooms in quite such a neat manner, besides having one or two specimens a little stale; still it was a good exhibit; Mr. Chandler, third.

For twelve incurved, distinct, Mr. Higgs was easily first; Mr. Drake was second with smaller yet neat blooms.

DISTINCT CLASSES.

Much interest was centred in these classes, which were numerous and well contested. A silver challenge cup is offered by the president, S. Roberts, Esq., in addition to the money prize for a group of Chrysanthemums, flowering and foliage plants arranged for effect in 100 square feet. Unfortunately, there was but one competitor, Mr. C. E. Abbott, gardener to J. G. Graves, Esq., Rimsdale, who had very good Chrysanthemums and other plants.

In the miscellaneous plant classes many prizes were offered and a good display made. The leading prize-winners were Mr. S. F. Flowerday, Mr. J. G. Graves, and Lord Halifax. Exotic Ferns, table plants, and Palms were very well shown. Amateurs and cottagers staged remarkably fine Japanese and incurved cut blooms in the many classes set apart for them.

BIRMINGHAM CHRYSANTHEMUM SHOW.

The annual exhibition of the Birmingham and Midland Counties Horticultural Society was held in Bingley Hall on the 7th, 8th, and 9th inst. It was a splendid show on the whole, but the cut blooms of Chrysanthemums were not so good as usual. The specimen plants, groups of Chrysanthemums, fruit, vegetables, and non-competitive exhibits, however, combined to make a grand display, which, together with the large attendance, must have been very gratifying to Sir John Holder, Bart., president, Mr. J. Hughes, secretary, and the committee.

PLANTS.

The first prize in each of the following classes, nine large flowering, six large flowering, six Japanese, three Japanese, one large flowering, and one Japanese was won by Mr. E. Martineau, Birmingham, with finely-flowered plants that well merited the remarkable success they gained. Mr. J. A. Kenrick, Edgbaston, was second in all these classes, except that for one Japanese variety, where he was third, and Mr. E. Buden was second.

Messrs. Sandford and Co., Hall Green, Birmingham, were first for a group of Chrysanthemums, 20 feet by 12 feet, with a very attractive display; second, Mr. J. A. Kenrick. For a smaller similar group Mr. R. Clark, Edgbaston, was first, while for a group of decorative Chrysanthemums the first prize was won by Messrs. Sandford and Co., Mr. Herbert, Acock's Green, being an excellent second.

CUT BLOOMS.

For eight vases of Japanese blooms Mr. H. O. Lord, Charlton King's, was first, Mr. R. Rowe, Worcester, being second, and the Rev. G. R. Arbuthnot, Stratford, third. Colonel Beech, Coventry, was the only exhibitor of six vases of Japanese blooms, and was awarded first prize. Mr. R. Barner, Malvern, won for four vases and for two vases of Japanese blooms, and for one vase of a pink, crimson, and white Japanese blooms respectively. For one vase of yellow Japanese blooms Mr. H. O. Lord was first, and Messrs. Sandford and Co. won for single-flowered and for decorative varieties.

The best twelve incurved blooms were shown by the Earl of Harrington, Elvaston Castle, Derby, and the best twelve Japanese incurved by Mr. W. Iggliden, Frome.

Messrs. Sandford and Co. were first for twelve blooms (six incurved, six Japanese) grown within four miles of Birmingham, and for twenty-four blooms (both classes) grown under similar conditions. In another class for twelve blooms (six Japanese, six incurved) Mr. P. G. Vaughton, Handsworth, won first prize.

There were numerous classes for such plants as Primulas, Cyclamens, Palms, &c. A fine exhibit of twelve Primulas gained first prize in this class for Mr. J. A. Kenrick, Edgbaston. The best dinner table decoration was that arranged by Miss G. White, Acock's Green, with Chrysanthemums in yellow and allied shades of colour. Miss Davis, Pershore, was second, and Messrs. Pope and Son, third.

FRUIT.

There were some splendid exhibits of fruit in the competitive classes, and also by those exhibitors not competing. That which won first prize for Mr. Goodacre, gardener to the Earl of Harrington, in the class for a collection of British-grown fruit, was a grand display of perfectly-finished fruit. The Muscat of Alexandria Grapes were excellent; so, too, were the Apples, Pears, Plums, &c. Mr. T. Barratt, Nottingham, was second, and the Earl of Carnarvon, Bretby Park, third.

Mr. Goodacre won the first prize for six bunches of Grapes, three bunches of White Muscats, six dishes of dessert Apples, and six dishes of culinary Apples.

For a collection of British-grown hardy fruit the Earl of Chesterfield, Holm Lacy, was first with an excellent

exhibit, thus winning for the first year the challenge cup given by Sir John Holder, Bart. This cup must be won twice to become the exhibitor's property. Second, Mr. T. Corbett, Impney Hall, Droitwich; third, Mr. J. Basham, Bassaleg.

The Right Hon. T. F. Halsey, Hemel Hempstead, was first for two bunches of white Grapes (Muscats excluded), Mr. G. F. Fleming, Romsey, for three bunches of black Grapes, Mr. E. Martineau for two bunches of black Grapes, and Mr. C. W. Powell for white Grapes (the two latter being local classes). The best eight dishes of Pears were shown by Mr. W. Maynard, Ledbury.

VEGETABLES.

These were finely shown, and special prizes were offered by several seedsmen.

Sutton and Sons' Prizes.—Mr. E. Beckett, gardener to Lord Aldenham, Elstree, was first for a collection of nine distinct kinds of vegetables, and won the first prize in several other classes in this section. Other winners of first prizes were the Right Hon. T. F. Halsey; Mr. P. Southby, Bampton; Colonel Paley, Gloucester; the Earl of Carnarvon, Mr. C. J. Eveson, and Mrs. Dennison.

Webb and Sons' Prizes.—The Right Hon. T. F. Halsey was first in the class for eight kinds of vegetables, and for the best dish of any of Webb's Tomatoes.

Simpson and Sons' Prizes.—The chief prizewinners in these classes were Messrs. W. Iggliden, E. Deakin, W. Waldron, E. Winchester, W. Midwinter, W. F. Bennett, and Mrs. W. Wiggin.

Robert Sydenham's Prizes.—In the open classes for prizes offered by Mr. Robert Sydenham the chief prize-winners were Messrs. J. Jones, Perkins and Sons, E. A. Ansell, Earl of Carnarvon, K. Hoispool, the Right Hon. T. F. Halsey, Colonel Middleton, and W. Waloron. Mr. Sydenham also offered numerous prizes for local growers. A £15 silver challenge bowl, to be won three times, was among the prizes offered by Mr. Sydenham in the open classes.

The non-competitive exhibits were exceptionally fine.

PLYMOUTH CHRYSANTHEMUM SHOW.

The West of England Chrysanthemum Society held an excellent show in the Guildhall, Plymouth, on the 7th inst. The cut blooms were of an unusually high order of merit, and the Chrysanthemum groups were finer than ever, the majority of the blooms included in these being fit for the show board. Mr. F. S. Vallis's two first prize stands were perfect. The first prize stands for twelve and six cut blooms in the amateurs' section were good enough to have won in the open classes. Excellent fruit and vegetables were shown, and Orchids and greenhouse plants contributed much to the interest of the show.

OPEN CLASSES.

Forty-eight Japanese blooms: First, Mr. F. S. Vallis, with such a superb stand that the destination of the first prize was speedily settled; second, Mr. H. N. Harrison; third, General Sir R. Pole-Carew.

Twenty-four Japanese: First, Mr. F. S. Vallis, with another splendid stand; second, Mr. H. N. Harrison; third, Mrs. J. K. Gulson.

Six Japanese, white: First, Mr. J. M. Stocker, with Miss Elsie Fulton. Six Japanese incurved: First, Mrs. J. R. Gulson.

Eighteen Japanese, distinct, in vases: First, Mrs. Bainbridge, with F. S. Vallis, very fine. Twelve vases, single Chrysanthemums: First, Mrs. J. R. Gulson. Group of Orchids: First, Messrs. J. Webber and Son. Miscellaneous group of plants: First, Messrs. J. Webber and Son.

DEVON AND CORNWALL.

Miscellaneous group of plants: First, Captain M. E. Browning, R.N. Group of Chrysanthemums: First, Mr. G. Soltau-Symons, with a perfect collection of large-flowered plants.

Twenty-four Japanese blooms: First, Lady Buller. Twelve Japanese: First, General Sir R. Pole-Carew. Twelve Japanese in vases: First, Mrs. Bainbridge. Six Japanese: First, General Sir R. Pole-Carew. Six Japanese incurved: First, Lady Buller.

In the amateur classes for cut blooms Mr. A. F. Hill's stands of twelve and six Japanese were quite equal to any in the show. In the fruit classes the chief prizes were carried off by Mr. B. H. Hill, Mr. J. E. Gulson, the Earl of Morley, the Earl of Mount Edgcumbe, and the Rev. Baring Gould, and in vegetables the principal winners were Mr. B. H. Hill, Mr. F. Bradshaw, Mr. F. E. R. J., and Mr. C. Matthews.

NURSERYMEN'S EXHIBITS.

Messrs. R. Veitch and Son, Exeter, staged a representative collection of Apples and blooms of the finest Japanese Chrysanthemums, and many winter-flowering plants, as *Pancratium fragrans*, *Tree Carnations*, *Valloia purpurea*, *Nerines*, *Bouvardias*, &c. Messrs. T. J. R. Chalce and Son, Plympton, had a large pyramidal mass of *Ruellia macrantha* in full bloom, flanked on either side by large groups of scarlet *Bouvardias*. Messrs. Sutton and Sons, Reading, contributed a very decorative stand, for which they obtained a gold medal and certificate. There were Tomatoes, yellow and red, *Capsicums*, ornamental Gourds, &c. Mr. Vincent Slade, Taunton, exhibited zonal *Pelargoniums* in fifty varieties. Messrs. J. Tomlinson and Sons, Devonport, staged a large collection of Apples, backed by stove and greenhouse plants. Messrs. R. Sater, Limited, Paignton, exhibited Apples and a general collection of plants, and Mr. N. Lewis, Bridgewater, showed a large assortment of *Michaelmas Daisies*.

* * * The Yearly Subscription to THE GARDEN is: Inland, 6s. 6d.; Foreign, 8s. 9d.

THE GARDEN.

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THE HOLLY.

A PAPER on the Holly was read before the Royal Horticultural Society on Tuesday last, and a few comments on the remarks made may be interesting and perhaps profitable to our readers. No tree or shrub plays a more important part in the winter landscape, though we cannot spare one of our native evergreens from either hill or dale. As was pointed out, in no other country does Holly thrive as it does with us, and for that reason, if for no other, we should make it a main feature in our English landscape, encouraging it in those localities where it is naturally abundant, and planting it and cherishing it elsewhere. The winter outlook from our windows is quite as important to us as individuals, if not more so, than the distant view. We surround our houses with Rhododendrons and all manner of exotic evergreens, and they all have, as we are most ready to acknowledge, their distinct beauty and advantage. We may, however, be suffering from a plethora of Rhododendron ponticum, for example, which year by year is rising into a dense wall, and threatening to shut out light and air, and gives a sense of oppression which must be lived in to be felt or understood.

Those who are thinking of any new planting of trees and shrubs in garden, coppice, or hedge might do well to think over the good qualities of the Holly before going further afield for a choice. In this hurrying age we cannot wait for anything that seems to loiter, and perhaps it is partly for this reason that Holly is not planted as it used to be; but partly, also, it may be, that our minds are led astray by the innumerable foreign trees and shrubs which are now within our reach, and clamour for space in such planting ground as may have fallen to our lot.

As a specimen, on a wide lawn, with branches feathering to the ground, few things can exceed the fine symmetry of the finest green-leaved Hollies, though amongst the host of garden varieties which have been raised, many of them most beautiful in their variegation, there is abundance of choice to satisfy the most exacting taste. We all love the glowing berries which help to light up the winter day, but the creamy foam of Holly flowers in spring scarcely ever receives its due measure of praise.

Take it year in and year out, few trees, home or foreign, keep their beauty at all times like the Holly; and not only can it be used as a single specimen or in a well-placed group to an ordered pleasance, it is quite as invaluable in the home copse, filling spaces under larger trees where nothing else will flourish, and giving just that invigorating touch of warmth and brightness to the woodside, by the glint of the polished leaves, which is the prerogative of no other British evergreen.

The writer of the paper also pointed out the value of the Holly for hedges, and the brightest of the variegated varieties. Many of the species were described, but no attempt made to compile an elaborate monograph, which, we hope, will be the work of someone with an intense knowledge of the subject, such as Mr. William Atkinson, in whose nursery at Handsworth is probably the finest collection in the world. Many of the parent varieties may be seen there, and to the student of the Holly a visit to this home of a delightful shrub is certain to prove of more than passing interest.

It is impossible in the space at our disposal to refer at length to this paper, but those who intend to plant the Holly, and May was given as the best month, will be interested in the following selections, which were recommended as comprising the most beautiful varieties in existence: Shepherd, platyphylla, Wilsoni, Gold Queen, Silver Queen, Handsworth New Silver (the finest of all the silver Hollies), compacta aurea, camelliæfolia, Hendersonii, Handsworthensis, Maderiensis, and argentea marginata; the best six being Shepherd, Gold Queen, Handsworth New Silver, Platyphylla, camelliæfolia, and compacta aurea.

PLANTING FRUIT TREES.

PRIZE-WINNING ESSAY.

I. State the best time for planting hardy fruit trees, to include Apples, Pears, Peaches and Nectarines, Plums, Cherries, Gooseberries, Currants, and Strawberries, giving the distances apart to plant each.

Apples and Pears.—There can be no doubt that November is the best month for planting operations, and it may be further stated, as a good and safe rule, the sooner the trees are planted after the leaves have fallen the more readily will they establish themselves. In considering the question of distance apart, the following important points must be carefully borne in mind: (1) The nature of the stocks upon which the trees are worked. (2) The method of management adopted. (3) The

operation of root-pruning. (4) The individual characteristics of the varieties grown. (5) The natural fertility of the soil. In actual practice it is often found necessary to modify distances of planting in accordance with observations, which can only be accurately made upon the spot when planting operations are to take place; and it should be noted that the following list of distances, when viewed in the light of the above heads, can only be of a general character, but they will in most cases be quite satisfactory for average conditions.

APPLES.		Feet apart.
Standards	24
Pyramids and Lushes, on Paradise stock, root-pruned	6
Espaliers, on Paradise stock	12 to 15
" " Crab	20
Upright cordons	2 to 3
Diagonal	2
Horizontal	5
" " double	10

PEARS.		Feet apart.
Standards	24
Pyramids and bushes on Quince stock	9
" " " " Pear	12
Horizontal espalier, on Quince stock, for rails or walls	12
Upright espalier, on Quince stock, for rails or walls	4
Horizontal espalier, on Pear stock, for rails or walls	20
Upright cordons	2 to 3
Diagonal	2
Horizontal	5
" " double	10

PLUMS.		Feet apart.
<i>Best Planted in November.</i>		
Standards	24
Pyramids	9 to 12
Espaliers, for rails or walls	20

PEACHES AND NECTARINES.		Feet apart.
<i>Best Planted from middle to end of October.</i>		
For walls	15 to 20
Cordons	6
(Generally speaking, the lower the wall the closer will be the planting.)		
8 feet wall	9 to 10
12 " "	18 " 20

CHERRIES.		Feet apart.
<i>Best Planted from middle to end of October</i>		
Standards	24
Pyramids or bushes, on Mahaleb stock, root-pruned	9
Espaliers for walls or rails	15 to 20
Upright cordons	2 " 3
Diagonal	2
Horizontal	5
" " double	10

CURRANTS AND GOOSEBERRIES.		Feet apart.
<i>Best Planted in October or beginning of November.</i>		
On poor soils	4 feet apart
" " richer	5 " "
Single cordons on wall	3 inches, "
Double	20 " "
Horizontally trained on walls or espaliers	3 feet
(On deep soils often close planted to form a hedge.)		

Strawberries are best planted in the second half of July or first week in August. Distance apart depends largely upon variety and the richness of soil. Strong growers in rich soil need rows 3 feet apart, and 1½ feet between the plants in the rows. Medium growers need rows 2 feet 6 inches apart, and 15 inches between the plants in the rows. On a large scale they are often

planted 30 inches apart each way, in order to facilitate inter-cultivation by means of horse hoes.

II. Describe the composition of the soil most suitable for the culture of each of the above.

The composition of the soil most suitable for the culture of each of the subjects enumerated in Question I. is as follows:—Apples: A rich, deep, well-drained loam. Pears: Same as Apples. Peaches and Nectarines: Any porous soil of fair fertility and loamy character will produce excellent fruit. It is, moreover, a desirable practice to add mortar rubbish if soil is deficient in lime. Plums: A strong retentive soil is good, and lime rubbish is desirable; a very rich soil is not suitable, as this tends to produce an excessive amount of wood. Cherries prefer a deep, mellow loam with some lime in it. Red and White Currants: A deep and well-drained loam. Black Currants: A retentive loam, not too heavy, but rather moist. Gooseberries will thrive on most soils, but prefer a moderately deep soil; a fertile loam with good drainage gives excellent results. Strawberries: Generally speaking, Strawberries do well in most ordinary soils, but varieties vary in their requirements. A soil of medium strength is desirable, and, doubtless, a deeply-worked friable, mellow loam, well-manured, may be regarded as the ideal soil for the successful growth of Strawberries.

III. Describe your methods of planting, also of the preparation of the soil, both for orchard and garden planting, and staking and protection after planting.

Preparation of the Soil—Draining.—In the preparation of the soil for the successful growth of fruit there can be no question as to the advantages of a well-drained soil, for it is obvious, if the best results are to be obtained, we must first of all ensure the requisite conditions of growth, sour, sodden soils being highly inimical to root development, and, consequently, it naturally follows that every precaution must be taken to avoid excessive moisture in our soils. The advantages attending efficient drainage are numerous.

Assuming that the ideal soil given above for all cases is attainable, and the land has been efficiently drained if need be, the preparation of the soil must now be pushed forward. The ground may be well trenched—especially is this the case in gardens, but for orchards on a large scale such a procedure would be impracticable on the score of expense; but even in this case the soil should be stirred as deeply as circumstances will permit. Moreover, in the operation of trenching, it is not desirable to force the depth of staple if there is the slightest fear of injurious substances in the sub-soil. In a case of this kind the safest procedure would, of course, be bastard trenching or fairly deep digging. For orchards deep ploughing may be adopted, and if this is not permissible, or if the land is in grass, where each tree is to be planted, holes 6 feet in diameter and 1 foot deep may be opened up, the sub-soil may be broken up for another foot, and then planting may proceed. In the case of Apples, Pears, Plums, &c., if the soil is good, there is no necessity to work in manure.

Planting—This operation must be carefully performed if success is to be secured. Extremes must be avoided, too deep planting being quite as disastrous as too shallow planting. Holes of sufficient dimensions should be dug, and they should be large enough to accommodate all the roots when evenly spread out, with a few inches to spare on all sides. The base of the hole should be made firm and be slightly raised in the centre. A stout stake should be then driven into the centre of the hole and the tree loosely tied to this, and it is advisable to place the tree on the side of the stake towards the prevailing winds. The tree having been placed in the hole, and the roots spread out evenly in the same horizontal plane, all that are bruised should be cut off with a sharp knife, also all long coarse roots should be shortened back. The process of filling in with fine soil may now be commenced, the tree being slightly moved up and down to

admit of the fine particles working their way between all the fibres of the roots. After all has been filled in, the soil may be trodden gently and firmly down, but it must under no circumstances be rammed down with the boot-heel, gentle firm treading being all that is necessary. Every care should be taken to see that the original ground line—always so distinctly marked on all trees—is exactly on the surface when operations are finished; some, indeed, leave it just a shade higher, to admit of any sinking, which nearly always takes place as the soil, in course of time, becomes more compact. Sometimes the roots come off at different levels, and when this is the case they should be carefully laid in at their natural levels as the process of filling in proceeds. It is, indeed, an excellent plan to have the holes prepared some time in advance, for not only is time saved during planting, but the ground has had time to become thoroughly aerated, which in itself tends more to success than many planters realise. When planting operations are begun everything should be in readiness, and the work carried out with the utmost despatch. It may sometimes happen, especially if trees have not been carefully packed, that the roots may show signs of a little dryness; in this case it is well to let them stand in water some little time before planting.

The final tying is now made, and this should be securely done, strong tar string being very suitable for this purpose. Every precaution should be taken to avoid abrasion of the bark by the tying material, and there is no better way of avoiding this than by surrounding the stem with a piece of good stout felt. It is important to mention at this juncture that unless the tree be securely fixed there is liable to be movement caused by winds, and this is always attended by more or less grave danger; indeed, it is not too much to say that many good trees have been absolutely ruined through lack of attention to the simple matter of tying. The trees should be examined at frequent intervals to see that everything is satisfactory.

Protection may be treated from three points of view: (1) Against the ravages of ground game. (2) Cold and biting winds. (3) Insect attack. As a rule there is little difficulty with game in gardens, and special protection is rarely necessary; but in the case of orchards there is nothing so effective as wire-netting carefully put up, and especial care should be taken to put the netting at least 6 inches in the ground, to guard against the burrowing of rabbits, which do serious damage by barking the trees. Protection from cold and biting winds is usually accomplished by planting belts of quick-growing trees, and for this purpose it is difficult to beat closely-planted Poplars; a fence of Damsons may be also planted for the same purpose. A good spraying every February with alkali wash not only successfully keeps down most insects, but it possesses the double advantage of keeping the trees free from moss, lichen, and fungoid growths generally, in addition to rendering the trees objectionable to insects whether in the adult, pupa, or egg stage. Where winter moth is prevalent, grease-banding the trees should also be practised, the bands being put on early in October, and frequently freshened up by the addition of repeated applications of grease.

(To be continued.)

PRIZES FOR GARDENERS.

OCTOBER COMPETITION—AWARDS.

PLANTING FRUIT TREES.

THE replies to the questions on planting fruit trees, published in THE GARDEN during October, were of such uniform excellence that it was a matter of no small difficulty to award the prizes. Only a point separates each of the prize-winners, and the papers which are commended are little inferior. In none of the other competitions have so many excellent answers been

sent in, while the large number of replies received showed how popular the subject was. After very carefully considering the answers, we have awarded the prizes as follows:

First: Thomas Hacking, Bigods Hall, Dunmow, Essex.

Second: T. Hayton, Kilhey Court Gardens, Worthington, Wigan.

Third: Maurice H. Cazilet, Craddock Cleve, Cullompton, Devon.

Fourth: F. Atkin, The Gardens, Mossley Vale House, Mossley Hill, Liverpool.

The answers sent in by the following competitors were also very good indeed; in fact, one or two marks only separated several papers from the prize-winning ones: J. S. Upex, Wiganthorpe, York; R. M. Munro, Millfields, Nantwich, Cheshire; Charles Illott, Great Warley, Essex; Thomas Whepall, 8, Chatham Street, Normanton, Derby; M. A. Turner, Barstall, Ipswich; Fred W. Walker, The Gardens, Sion House, Sion Mills, County Tyrone, Ireland; James Hodgson, Kirklees Park Gardens, Brighouse, Yorks; George Camp, The Lodge, Holyport, Maidenhead; W. Tizzard, The Gardens, Bletchingley House, Bletchingley, near Redhill, Surrey; M. G. Foster, Inglewood, Witley, Surrey; E. J. Kirtland, The Hermitage Gardens, Walton-on-the-Hill, Epsom; A. J. M. Lennan, Hallgarth Square, Sunderland; J. Comber, The Gardens, Nymans, Crawley, Sussex; J. Parkes, The Gardens, Wallfields, Hertford; M. E. Bickersteth, West Lodge, Ripon; H. M. W. Bridgman, The Padlocks, Hayward's Heath, Sussex; J. Wescott, 27, St. Clare Street, Penzance, Cornwall.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

November 28—Annual dinner of the National Chrysanthemum Society.

December 5—Royal Horticultural Society, meeting of committees, 12 noon.

December 12—Horticultural Club, 6 p.m., Hotel Windsor, Mr. Robert Read, M.B.O.U., on "Brid Life in Field and Garden" (lantern slides).

Potato experiments.—"The result of a trial of Potatoes made in the garden of Mr. Mackay, Craigmonie, may be interesting to your readers," writes a correspondent. "The idea was to test some of the newer kinds with some of the oldest varieties in cultivation. The old 'Black' Potato and the 'Cups' were the oldest that could be procured. We may safely say that these two have been in cultivation for at least a hundred years. As will be seen from the result of the trial, the old varieties do not seem to degenerate so much as we are sometimes led to believe. The reason that the trial was made on so small a scale was that we had only $\frac{1}{2}$ lb. of Eldorado (which cost 10s. 6d.). We, therefore, only planted $\frac{1}{2}$ lb. of each, all cut into four sets. The following is the result: Duchess of Cornwall, 25lb., no disease; Up-to-Date, 22lb., 1 diseased tuber; The Factor, 22lb., 1 diseased; The Crofter, 22lb., no disease; Northern Star, 18lb., 5 diseased; old 'Black' Potato, 17lb., 3 diseased; British Queen, 15lb., 5 diseased; Maggie, 14lb., 5 diseased; Evergood, 14lb., no disease; Windsor Castle, 12lb., 2 diseased; Abundance, 11lb., 2 diseased; The Sirdar, 11lb., 1 diseased; 'Cups,' 10lb., no disease; Eldorado, 4lb., 3 diseased. It will be seen from the foregoing that the much-boomed Northern Star gives very little more of a return, while it is worse with disease than the variety that has been in cultivation for at least a century. Eldorado, which was sold for £100 per pound less than two years ago, is a failure as a cropper, and badly diseased. The Duchess of Cornwall, also a comparatively new variety, is worth the attention of growers, it having taken the lead in most of the trials made last year both in Scotland and England."

Callipsyche aurantiaca.—One of the most distinct flowering plants at Kew just now is this quaint bulbous plant. The flowers, which make their appearance before the production of the leaves, are on a scape 2 feet in height or thereabouts. They are of a clear golden-yellow, and bear a certain resemblance to a small Day Lily, but the stamens protrude quite 3 inches from the perianth. These stamens, which incline upward in a graceful curve, are greenish, thus contrasting with the golden hue of the blossoms. The plant is a native of the Andes of Ecuador, and was introduced therefrom in 1868. Outside botanic gardens or in the collection of some specialist it is very rarely seen, though it well merits extended cultivation. There are other species, but this is the most desirable member of the genus.—H. P.

Witsenia corymbosa.—A delightful specimen of this South African Irid, once so popular but now seldom seen, is in full flower in No. 4 greenhouse at Kew. Unlike most of the Iris family it forms a sturdy stem of a firm woody texture, which in its turn is well furnished with branches. The small sword-shaped leaves are arranged in a fanlike manner at the tips of the shoots, while they are overtopped by the erect branching racemes of charming blue flowers, suggesting those of a small Iris. With the tendency for changing of names now so prevalent, the genus *Witsenia* is by many botanical authorities merged into that of *Aristea*, the plant in question being known as *Aristea corymbosa*. It is a native of South Africa, and was introduced in 1803. In bygone days, when hard-wooded specimen plants were popular, this *Witsenia* was a general favourite, but now it is rarely seen, the rate of growth being much too slow to satisfy most of the present cultivators. It also takes a long time to strike from cuttings, which should be inserted into pots of very sandy peat, and covered with a bell-glass. Very little fire-heat must at first be given, but after a time a slight increase will assist the formation of roots. The soil best suited for this *Witsenia* is good fibrous peat, with a liberal admixture of sand, and the general treatment should be much the same as that given to Cape Heaths.—H. P.

A valuable bedding Begonia.—Many gardeners in the spring of the year have to decide the sometimes difficult question of filling various flower-beds satisfactorily for the coming season. One of the best plants for the purpose is the tuberous-rooted *Begonia* Count Zeppelin, which, however, is comparatively seldom met with. A few notes about the best way to increase this valuable *Begonia* may be of interest. This *Begonia* bears seed capsules. They do not ripen, however, but fall off when frost comes. It is very unusual to be able to gather ripe seeds. One must, therefore, seek to propagate the *Begonia* by means of cuttings. The results obtained by this method are most favourable. Even from one bulb, by suitable propagation, it is possible to have about 1,000 bulbs in two years' time. The way to proceed is as follows: In January place the bulb in a box filled with very light sandy soil in a warm case. Encourage growth by keeping a warm, moist atmosphere, but give water very sparingly and carefully at first. As soon as the young shoots have made three or four leaves they are cut off close to the bulb and placed in the propagating case, or on a hot-bed in a warm house, to encourage them to root. In two or three weeks' time the cuttings will have rooted, and as soon as they have made a fair number of roots they are planted in leaf-soil in a warm frame. The further treatment is just the same as that given to the ordinary tuberous *Begonia*. They require careful watering, and must be gradually inured to a colder temperature preparatory to being placed out of doors. One continues to take cuttings from cuttings until the middle of July, the cuttings being always taken from the strongest plants. After their flowering out of doors is

over, the bulbs are left out until the frost has destroyed stem and foliage. During winter the bulbs of *Begonia* Count Zeppelin are stored in the same way as the other varieties of the tuberous *Begonia*. Anyone who sees a large bed filled with this *Begonia* cannot fail to be pleased with the display it makes. Its richly coloured orange-scarlet flowers, which are so freely produced, the fact of their being little affected by the sun, and the dwarfness of the plants, mark this *Begonia* as a most valuable one for massing in beds.—*Deutsche Gärtner-Zeitung*.

Chrysanthemums at Finsbury Park.—This collection may justly claim distinction for the high quality of the blooms, and also the infinite variety both in colour and form, as well as the number of types. Mr. Melville certainly appears to be ahead of his fellows in this respect, and it must be admitted that the collection at this well-known public park serves to educate the public as very few others are calculated to do. Many of the better sorts of recent introduction, as well as some of the oldest, are in perfection. Not only are the Japanese and incurved sorts grown in large numbers, but the quaint and curious *Anemones* are excellent. Pompons and singles are charmingly displayed, and it is gratifying to note that the splendid decorative character of the smaller flowered sorts is properly appreciated. At the back of the greenhouse freely flowered specimens of the smaller Japanese decorative kinds are trained along the wall, thus contrasting beautifully with the bold massive-looking flowers of their bigger rivals. The single-flowered sorts are arranged in the large conservatory, at one end of which their free and pleasing display never fails to charm the thousands of visitors that throng the glass structure during regulation hours. Considering these plants are grown just on the fringe of a populous area it is astonishing that so splendid a result should be obtained.

Chrysanthemums at Battersea Park.—The *Chrysanthemums* at Battersea Park are always noteworthy for the artistic manner in which they are arranged, and this year quite a new plan has been designed. It consists of a serpentine path from one end to the other of the span-roof greenhouse in which the plants are displayed, and by this means instead of there being one deep sloping bank of blooms there are two, and the visitor walks between them. The ends and the roof are freely decorated with flowering plants of Pompons and decorative Japanese in great profusion, such varieties as *Angle d'Or*, *Sunset*, *Seur Melanie*, *Rosinante*, *Twilight*, *Ideal*, *L'île des plaisirs*, *Margot*, *Elsie*, &c., being most effectively employed. In the old incurved section we see a fairly representative collection. Here and there large Palms and freely-flowered plants of that little floral gem *Mme. Elise Dordans*, the single-flowered *Miss Mary Anderson*, the old reflexed *Dr. Sharpe* are intermingled with the bigger blooms, and lend a pleasing effect to the mass of Japanese blooms that form the bulk of the display. Extra fine among the many good things are *Florence Molyneux*, *Duchess of Sutherland*, *President Borel*, *Lady Byron*, *Mrs. G. Mileham* (very fine), *Eastman Belle* (a dazzling crimson), *Bessie Godfrey*, *Lady Hanham*, *Mrs. Combes*, *Mrs. White Popham*, and *Australie* (one of the biggest). Each end of the greenhouse is covered with plants of *Margot* very freely and effectively flowered, which form quite an object-lesson in the value of this variety for decorative purposes.

Lantana salvifolia.—This is, I believe, one of the original species of *Lantana*, though it does not occur in the "Kew Hand List" of tender plants. Compared with the numerous garden forms in cultivation it is of slender growth, so that as a bush in comparatively small pots it is not seen at its best. It is, however, a good plant for clothing a pillar in a greenhouse or conservatory, under which conditions it has for several seasons, in No. 4 greenhouse at Kew,

gained many admirers, the long slender shoot disposing themselves in a very pleasing and informal manner, while the rounded clusters of lilac-tinted blossoms are borne in great profusion. The *Lantanas* of all kinds are, however, more generally regarded as summer-flowering subjects, hence it came as a valuable object-lesson to find the particular specimen at Kew flowering as freely in the middle of November as it was three months previously. Such continuous blooming qualities should entitle it to a place in the first rank of pillar plants for the greenhouse; indeed, I know of few subjects that could compete with it in the length of time over which the flowers are produced. Despite the valuable features of this *Lantana* the name is rarely to be met with in catalogues, though a form grown in the London parks and employed for summer bedding under the name of *Lantana delicatissima*, appears to be the same. All are very easily propagated by cuttings in the spring.—T.

Rondeletia (Rogiera) gratisima.—Given a greenhouse where a light, buoyant atmosphere is maintained, this Mexican shrub is very attractive at this time of the year by reason of its clusters of charming blossoms. It is now very rarely met with, owing to failures in its cultivation, caused—in many instances at least—by being kept too warm. This *Rondeletia* forms a freely-branched bush, clothed with dark green pointed ovate leaves, while the general appearance of the flowers somewhat suggests the *Laurustinus*. Individually, they consist of a narrow tube about an inch long, with an expanded mouth in the form of a five-pointed star, with rounded lobes, the entire bloom being about one-third of an inch across. They are of a pretty blush tint when expanded, while the exterior of the tube and the unopened buds are deep reddish pink. The fragrance is also very pleasant. A suitable potting compost may be formed of equal parts of fibrous loam and peat, with a liberal sprinkling of silver sand and nodules of charcoal. Good drainage is also essential. In too dry an atmosphere the leaves are apt to be attacked by thrips, which soon disfigure them. Like its allies the *Bouvardias*, this *Rondeletia* is quickly injured by the sulphur-laden fogs which prevail at this season in the London district. Other *Rondeletias* of great merit as flowering plants are *R. speciosa* major and *R. amœna*. Both need rather more heat than *R. gratisima*.—T.

TREES AND SHRUBS.

ARALIA SESSILIFLORUM.

AS a flowering shrub little or nothing can be advanced in favour of this *Aralia*, but in autumn, when covered with dense heads of black fruit, its quaint appearance forces one to acknowledge that it is worthy of consideration for shrubbery work, especially as it is a sturdy grower and not very particular as to soil and position. It is a native of China, and forms naturally a dense, many-branched bush 4 feet or so high, clothed with dark green, ternate leaves, and bearing in early summer dense terminal heads of small, sessile, yellowish green flowers, which are followed by roundish fruits densely packed together. These fruits are first green, then red, and afterwards, when thoroughly ripe, black and juicy. As every branch is terminated with one of these dense, upright heads of fruit, the effect of a large bush, 4 feet or so across, can be imagined. When planted in a shrubbery plenty of room should be given for development. W. D.

LESPEDEZA SIEBOLDII.

WHEN well flowered and at its best this is a very ornamental shrub, and blossoming as it does in late autumn, a time when shrubs in bloom are very few indeed, its good qualities are appreciated

more than ever. This late flowering has, however, one drawback, for unless the autumn is exceptionally fine the blossoms open irregularly, and no really fine display is obtained. This year it promises to be satisfactory, and now, the middle of October, it is a very pretty sight, and should the weather keep mild it will last in good condition for at least three weeks. *L. Sieboldii* is a native of North China and Japan, and as grown here it forms a bush of annual, pithy shoots 4 feet to 5 feet in length. These are clothed with trifoliate leaves, and the upper half of each branch develops into one large plume-like inflorescence composed of large numbers of small, rosy purple, pea-shaped blooms. As a rule these branches are killed to the ground line during winter, but whether they are killed or not it is advisable to cut them down to the ground level in spring, as stronger and more floriferous growths arise from the root-stock than from the old branches. Light, loamy soil suits it, and a sheltered position is best. W. DALLIMORE.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

MILDEW-RESISTING ROSES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I read with much interest the article on "Mildew-resisting Roses" in your valuable journal dated the 4th inst., page 289. I beg to draw the attention of your readers to the undeniable fact that at last a certain and sure remedy has been discovered for the prevention and cure of mildew. The manufacturers of this valuable remedy are the Mo-Effic Chemical Company, 55, Brook Street, Bradford, Yorks, and I can assure all lovers of the Rose that this is a boon to them. It has been thoroughly tested by myself and other sceptical friends on such Roses as *Her Majesty*, *Killarney*, *Frau Karl Druschki*, and several others that are most addicted to mildew. In each case the result has been a complete cure, and thereby a further wealth of bloom this autumn. I have much pleasure indeed in being able to give you my experience in this matter, and feel that the Mo-Effic Chemical Company are worthy of national recognition for providing the means of reducing the terrible disease of mildew to a minimum.

J. H. HARGREAVES.

6, Wellington Crescent, Shipley, Yorks.

POTATOES NOT DECAYING.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I was much interested in the letter signed "G. H." on the above subject, and my own experience as regards Evergood is exactly that of your correspondent. I planted carefully-selected and properly-prepared seed of my own saving, but the early growth was so poor that I dug up the plants. It is the first time that I have seen the cause of non-decay attributed to "leaf curl," and it would be interesting to have the opinion of growers on this point. The absence of failure in the case of seed obtained from Scotland seems to support the theory that unripened tubers produce the best crop. I quite agree with "G. H." that cutting the seed does not necessarily promote its decay.

Bridgnorth.

S. E. D. TURNER.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—That seed tubers of Potatoes planted in the spring and producing new plants and tubers, then, when the crop is lifted, still come out hard and undecayed, is nothing new, neither is the leaf curl, which is so commonly associated with this non-decay of seed tubers. So long since as 1834 the matter was discussed in Scotland, and eventually it was shown that this non-decay

arose from the over-ripening of the tubers saved for replanting, and curl was then, as now, associated with it. I have been familiar with this form of non-decay for the past fifty years, and have generally found it in seasons succeeding hot, dry years when Potato growth was less strong and the tubers naturally of dryer flesh. It does seem as if there were seasons when ripeness was so thorough that starch granules almost entirely absorbed or expelled sap or moisture. But all the same, having for many years kept to the practice both of cutting tubers when large and invariably of setting all for planting up in boxes to first sprout before planting, I have never found any difference in the strength of the sprout thus produced, although there have been remarkable differences in the plant growth later, no doubt due to the over or under-ripening of the tubers. The trouble in Scotland so long since was overcome by lifting breadths of Potatoes before ripe; indeed, whilst the plants were still in good leafage and before the tuber skins were hard or set. To a large extent it does seem to be due to the fact that Scotch tubers do not ripen so fully as ours do in the South that seed tubers obtained from the North give such good results invariably, and yet all the same they cook splendidly. We in the South have learnt that when tubers are needed for seed to lift them before ripe and save them for planting. Some experiments made last summer at Reading showed that unripened tubers planted against ripe tubers gave by far the best results. A. D.

SOLANUM JASMINOIDES OUT OF DOORS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—This plant is thriving well on a wall here, and has flowered profusely. It is, as your correspondent (page 287) mentions, a beautiful subject for out of doors, and would make a change for use in covering arches, &c. *Solanum crispum* also quite outgrew its space, and grew to a height of some 15 feet. The Cinnamon and Camphor Tree are also growing very freely on the south wall. *Freemontia californica* is also making good growth. W. A. COOK.

Leonardslee Gardens, Sussex.

A USE FOR HORSE CHESTNUTS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I notice in THE GARDEN for the 4th inst. that a writer mentions that no use has been found for Horse Chestnuts. For some years past I have made a most excellent embrocation for bruises, sprains, and rheumatism by cutting the nuts up small, placing in a wide-necked bottle, and then filling up to the top with gin or brandy. Cork closely, shaking it occasionally, and pour off in three months. If rubbed well in it is most efficacious; it will keep any length of time. This is much used and well known in Germany.

Carisbrooke, Isle of Wight.

S.

ROYAL BOTANIC SOCIETY.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—A meeting of this society has been summoned for Friday, the 24th inst., at four o'clock, to vote on a proposal to be submitted by the Council to raise the Fellows' annual subscription from two to three guineas, on the ground that this increase is essential to keep the society in existence, as the liabilities now exceed £30,000. This proposal is so drastic, and the financial position of the society so serious, that many of the Fellows have embodied their views in a communication they intend to submit to the Council. While the Council are able to use, and are using, the whole organisation of the society to obtain support for their motion, the Fellows have to act more or less singly. The future of the society is a matter of such public concern that I venture to ask you to allow me through your columns to invite Fellows to communicate with me if they

desire to know the non-official views as distinct from those put forward by the Council.

J. S. RUBINSTEIN.

76, Addison Road, Kensington, W.

TWO GOOD PEAS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I was interested in the article on "Two Good Peas" in THE GARDEN of October 28. If your correspondent has not made a mistake in the date of picking Fidler's Earliest of All Pea, viz., April 5, it would be interesting to many to know how and under what conditions they were grown. I live about a mile from the said garden, and make my first sowing the first week in January, but seldom pick before the end of May, although the seed is sown on a very warm south border. Perhaps your correspondent will help me. R. JACKSON.

HELIOPSIS PITCHERIANA.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Referring to Mr. Arnot's notes on the above-named and other forms of *Heliopsis* on page 273 (October 28) I regret to say that I am unable to assist him with any useful evidence concerning the respective merits of those he mentions. In addition to *pitcheriana* I grow only three species, or varieties, of *Scabra*, viz., the ordinary form and two dwarf ones, and I do not know the proper name, unfortunately, of one of these. The other is called *Tom Thumb*, and was given to me by a friend who had it from Messrs. Barr. It is comparatively dwarf and of a good deep colour, a desirable form altogether, though the flowers do not, in my opinion, come up to those of *pitcheriana*. It is to be hoped that some other readers of THE GARDEN who go in for *Heliopsis* may see Mr. Arnot's notes and give us their opinions on the subject. Yalding, Kent.

S. G. REID.

CLEMATIS HERACLEAFOLIA VAR. DAVIDIANA.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I was glad to see the excellent illustration of this fine plant in THE GARDEN for the 28th ult. I have never seen it trained against a wall in England, in fact its suitability for this mode of culture had never occurred to me. One does not see the plant in the ordinary run of gardens, and it was not until Miss Jekyll praised it in "Wood and Garden" that I began growing it. Here it proves absolutely hardy, and makes a regular bush, dying down to the ground each year unless the winter is exceptionally mild. The flowers are not showy, nevertheless they are most pleasing, and their pale blue colouring is not found in any other hardy plant in bloom during August and September. Unfortunately, they are of no use in the house, as they will not last. I tried a delightful combination of this and some flowering sprays of *Polygonum baldschuanicum*, but both quickly faded. It may interest Professor Waugh and others to know that Messrs. Lemoine of Nancy are sending out some new hybrids of *C. hyb. davidiana* this autumn. These have been raised by crossing this latter with the Japanese species, *C. stans*, which is figured in the *Botanical Magazine*, tab. 6810. These new hybrids are said to be very free flowering and beautiful, and are of various shades of blue and lilac. They flower from the middle of August until the end of September, and are distinct from those which were distributed some years ago under the names of *Clematis davidiana* hybrida, *C. Gerbe fleurie*, and *C. d. hyb. Profusion*. The names and descriptions are as follow: *Azur*. This grows into a bush about 3 feet high, and both in appearance and floriferousness closely resembles *C. stans*. The pyramidal-shaped panicles of flowers are held well above the leaves; colour a clear light blue with creamy white stamens. *Crépuscule* grows

somewhat taller; colour a beautiful shade of greyish blue. *Fraicheur* forms a much dwarfer bush than either of the preceding varieties, and has pale lilac or bluish white flowers.

Worcestershire.

A. R. G.

CLASSIFICATION OF NARCISSI.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Mr. Bourne's paper on the above is interesting and useful as far as it goes, but the changes in arrangement he proposes are so slight as to go a very small way towards evolving order out of confusion. The mistake of placing *Burbidgei* next *Poeticus* is trifling compared with that of putting *Bulbocodium* (with others) between *Ajax* and *incomparabilis*, and separating *odorus* and *Jonquilla* by the whole mass of *Poeticus* var. It is straining at gnats and swallowing camels. Surely a more drastic rearrangement is needed, and one more suggestive of the botanist and less of the enthusiast with an inch measure? The following outline appears both natural and convenient:

GENUS NARCISSUS.

Division I.: Flat-leaved. Sub-division I.: Only one flower on a stem (*Ajax*, *Poeticus*, intermediates, &c., arranged in groups). Sub-division II.: More than one flower on a stem (*Tazetta*, *tridymus*, &c.).

Division II.: Rush-leaved. Sub-division III.: Only one flower on a stem (*Bulbocodium*, &c.). Sub-division IV.: More than one flower on a stem (*odorus*, *Jonquilla*, intermediates, &c.).

We should then have four well-defined sub-divisions, and those kinds obviously closely related would be placed together, instead of, as at present, one huge confused assemblage, sorted only by the inch rule, and with but one group (the *Tazettas*) detached from it. In the groups into which those sub-divisions requiring it would be divided the true species and their varieties would surely be placed first and the hybrids afterwards, and where species from two different divisions or sub-divisions have been crossed the hybrid be placed in the division or sub-division of the parent it most strongly resembles. K.

A BLUE MARGUERITE (ARCTOTIS GRANDIS)

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I find that this new blue Marguerite is a sun and water-loving plant. If it is not liberally watered in dry weather it will not prove a success. Even in cold North Westmoreland I have grown it successfully and to my great satisfaction. The flowers are large and showy on long stems rising well above the foliage, and are, therefore, very useful for cutting. Mr. J. Higgins makes a great mistake in saying that the flowers when cut fail to open in water again. As a proof of their value for cut flowers, I gathered several about ten days ago and placed them in water in a small vase. The flowers, which have a delicate scent, opened each morning about eleven o'clock and closed again late in the evening. The flowers are still in water and look quite fresh. One plant I have now growing in a tub is 2 feet 4 inches in height and 18 inches in breadth. It has the large number of forty-eight buds on it, besides the flowers that are in bloom. Some of the flowers are 2½ inches across.

TOM PEARSON.

Little Strickland, near Penrith, Westmoreland.

KOCHIA SCOPARIA IN AMERICA.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I note in a recent number of your interesting paper several articles as to *Kochia scoparia* and its uses as a bedding plant. I have grown it for the last six or seven years, and this season have had it growing some 3 feet high and 2 feet in diameter. No plant on my grounds attracts more attention, excites more comment, is as easy to care for, or is so free from insect attack as this. No other plant is so easily grown.

I procured seed at the beginning and turned it over to a local florist to start under glass, but without a single seed germinating. Procuring seed from another source I gave it to another florist, who had the same lack of success. Then I bought plants from 2½-inch pots, and have had it ever since, depending wholly on "volunteers"; seeds self sown and dropping in the autumn, when my grounds are cleaned, have each spring produced thousands of plants. We have a very long and cold winter, the mercury going 20° to 25° below zero Fahr. at times, with 2 feet to 4 feet of snow, the ground closing up in November to remain frozen until late March or April following, so that a severe climate in no way affects it. In fact, this year noting a clump of seedlings appearing in a driveway constructed wholly of broken stone, I directed it should be left to test its vigour and vitality, and found it to live, grow to the height of 15 inches or more, and ripen, having no "visible means of support," save what it received from the crushed stone and the water from the sprinklers used to wet the driveway. It has come to be used in many of our smaller parks, grounds about railroad stations, and public gardens, and as such is receiving the usual large number of "popular names," such as "Fountain Plant," &c. I know of no other plant in and about this section which is becoming more in demand for common work than this.

C. W. HORT.

Nashua, New Hampshire, U.S.A.

THE FLOWER GARDEN.

CRINUM MOOREI.

ONE of the best *Crinums* for planting out of doors is *C. Moorei*, but in the colder parts of the country it requires a sheltered position. The accompanying illustration represents a plant growing against the wall of a greenhouse, where it has become thoroughly established, and produces abundance of its pale pink flowers during August and September. The flower scapes often attain a height of 5 feet, carrying from five to eight flowers in an umbel, which, with the luxuriant production



THE BEAUTIFUL CRINUM MOOREI IN THE CAMBRIDGE BOTANIC GARDEN.

of leaves, give to the plant a bold and attractive appearance.

E. J. ALLARD.

Botanic Garden, Cambridge.

A "SWEET" PATH.

AMONG other new features at Killerton Gardens, South Devon, is a charming walk from the new Rose garden to the Park. It is a long, straight path some 8 feet wide, and bordered on each side by low hedges of Lavender, which after the flowers are over are clipped square. They have just time to make a few inches of growth, which, whilst preserving the required formality, prevents any stiffness or naked shoots before the winter sets in.

The path itself was, after being forked over, allowed to lie fallow for a year to get rid of weeds. It was then made level and firm, and along the centre a double row of flat 12-inch to 15-inch slabs of red sandstone were firmly placed at intervals of about 9 inches. All around these "treads" thousands of the sweet-smelling wild Thyme were planted. They have grown so freely as completely to cover the soil between the stepping-stones. In another year most of the stones will also be covered, forming a pretty and uncommon path. Once established the wild Thyme may be freely walked upon.

At intervals Mr. Coutts hopes to replace this Thyme with large patches of the brightly-coloured variety *coccinea*. This will make a very pleasant addition. On one side of this walk stretches the famed Killerton Park, with acres of green pasture broken here and there with many fine ancestral trees, and several very old and picturesque Cedars of Lebanon. Here roam the mild-eyed fallow deer, and, still rarer, gallop numbers of brown-coated, long-tailed Dartmoor ponies. On the right of the walk are long herbaceous borders. Here again are more masses of Lavender, broken every 9 feet or 10 feet by strong clumps of *Lilium candidum*, among which the dreaded disease appears to be unknown. The borders themselves contain quantities of flourishing perennials and annuals. Here and there rise large plants of *Dracæna* (*Cordylina*) *australis*, with leaves of a size and greenness unknown in gardens where the "Club Palm" has to be grown under glass. Large groups of *Lobelia cardinalis* varieties

were cut from the plants on the day of my visit. There was also a handsome specimen of the strong and free-growing *Phalænopsis rimstadiana* in bloom with its very large and beautiful flowers of purest whiteness, except for the yellow markings on the lip. A huge specimen of *Vanda amesiana*, a most useful winter-flowering species, had extra strong flower-spikes, giving promise of a great display of its rose-purple and white flowers.

Coming to the Cattleyas, a beautiful object was a very fine plant of *Cattleya bowringiana* var. *triumphans*, having extraordinary deep rich purple flowers; also an exceptionally grand variety of the handsome hybrid of *Cattleya aurea* and *C. labiata*, viz., *C. Fabia*. The sepals and petals are of a charming rosy red-purple, a shade of colour that is certainly not common, while the lip is of a more intense shade of the same hue, indicative of the strong influence of *C. aurea*. Mention may here be made of the excellent condition of the Glebelands Orchids, reflecting great credit on all concerned in their culture, the Cattleyas particularly being remarkably well grown. I noticed a fine specimen of *C. Mossie*

rare *Oncidium ornithorhynchum album*, with its numerous branched spikes and buds, was just opening its flowers. ARGUTUS.

A BEAUTIFUL SURREY GARDEN.

WE are very pleased to publish the three illustrations of a Surrey garden—The Knipp, Chiddingfold, the residence of Mr. J. F. Ogilvy. As will be seen, there is an atmosphere of the English home in this beautiful place, the pergola of Gourds and the clustering of *Rêve d'Or*, planted three years ago against the walls, recalling many another garden in this beautiful county of wooded hills and leafy lanes. The use of Gourds over the pergola is not common, and their general adoption would be unwise, but on this sun-scored pergola walk the big, handsome leaves and richly coloured fruits have a charm that the plant certainly does not possess when grown like a Vegetable Marrow. Bright and lovely was The Knipp at the time these photographs were taken, and the massing of colour from the *Hydrangea* gains in richness against the thick growth of the climbers. Mrs. Ogilvy takes a keen interest in gardening, and much has been accomplished in the few years that have passed since the house was built. The *Hydrangeas* have been in their tubs for two years; the centre specimen measures 5 feet 9 inches across, and had over one hundred flowers.

THE KITCHEN GARDEN.

A RELIABLE WINTER CUCUMBER.

FORTUNATELY a great many are not compelled to grow winter Cucumbers, but those who do should give Sutton's Every Day a trial. The plant makes growth freely in bad weather and sets well, which are valuable characteristics. There is no difficulty in having an abundance of Cucumbers until November. In the month named and until early in the new year, they are none too plentiful, and a great deal depends upon the variety. Every Day is well named, for it gives fruit daily—not very large, but large enough for ordinary purposes; it is certainly one of the most shapely Cucumbers grown. Leckie's Perfection, an excellent variety, was for years a great favourite, and now it is one of the best standard kinds for winter culture, or indeed for any season. The newer Every Day sets freely in bad weather, the foliage is short jointed, and the fruits even in midwinter are all one can wish for. I have found it excellent for winter work, and those who require a shapely fruit of the best quality should give it a trial at any season.

G. WYTHES.

NON-HEARTING LETTUCE FOR WINTER.

VERY often from December to April—even later in many gardens—there is a deficiency of good Lettuce for winter salads, and this deficiency is chiefly due to climatic changes, as often the best cultivation and most careful attention fail to secure a good supply to fill the void. I would advise sowing fortnightly what is termed a non-hearting Lettuce, a variety with a large, tender leaf and of good colour. Messrs. Sutton of Reading have of late years sent out a Lettuce which is admirable for this purpose; the leaves are very



ROSE REVE D'OR AT CHIDDINGFOLD, SURREY.

are quite dazzling in the glow of the late September sunset, and a particularly healthy and vigorous *Tropæolum speciosum* rambles high over a tall Bamboo on to a large Grüss an Teplitz Rose growing vigorously on its own roots.

A. C. BARTLETT.

ORCHIDS.

ORCHIDS AT GLEBELANDS.

A VISIT to the above well-known gardens is never without interest. There is a select collection of Orchids, many plants of more than special merit being in bloom at almost any time.

This was particularly the case when I had the pleasure of calling in the early part of this month, and among the many magnificent plants in bloom the now rarely seen *Vanda sanderiana* was conspicuous. Mr. Fowler possesses the finest batch of specimens of this Orchid that have ever been in cultivation in one collection, and the plants are in superb condition. Two spikes

reineckiana. There was also a fine batch of *Lælia anceps*, which included specimens of the many white varieties. These show great promise if our November fogs do not hinder their development. Among other species and varieties that are well cultivated several very charming *Cypripediums* were in flower, conspicuous among the *C. insigne* being a grand plant of the delicately beautiful variety *Sanderæ*, with its citron-yellow coloured flowers shining as if polished, and almost pure white upper dorsal sepal. *C. insigne* *Luciani*, too, was in bud. This is one of the yellow-flowered varieties, but of a deeper and not so brilliant yellow as the variety *Sanderæ*. Another remarkable *Cypripedium* was the fine hybrid *C. leeanum* var. *clinkaberryanum*, certainly one of the finest of all the *leeanum* varieties. Many other noteworthy sorts were in bloom. In a corner of the *Odontoglossum* house a batch of the free-flowering *Masdevallia tovarensis* make a good display. It is a most useful white Orchid, and plants in full bloom are a beautiful sight. Here also was *Masdevallia lauchiana*, a rare and very pretty little species, the flowers being white with yellow-coloured short tails, and a fine specimen of the extremely



PERGOLA OF GOURDS IN THE KNIPP GARDENS, CHIDDINGFOLD.

tender, of rapid growth, and by regular sowings, as advised, a supply of delicious salad may be obtained throughout the winter months. It blanches rapidly, or may be used in a green state if desired. The seed should be sown in boxes or in a frame. I would advise the latter if quantity is required. We find it a good plan to sow in frames, dividing into three compartments. As one is cleared a sowing is made, the intervals between each sowing being ten days or a fortnight. It is necessary to sow very thinly to obtain a good plant; besides, thick sowing means waste of seed. Much warmth is not required, and free ventilation should be afforded in fine weather. For small supplies boxes are useful, as this Lettuce may be grown well in fruit houses if placed near the glass. G. WYTHES.

A GOOD WINTER TURNIP.

If sown now on good land Sutton's new yellow Six Week Turnip will be most valuable for winter use, and remain good until the end of April. Yellow Turnips in the southern part of the country are not much in favour, but I think the objection would readily be removed if those who study quality in vegetables grew the Yellow Six Weeks for a supply at the season named. White Turnips sown in August lose flavour badly early in the year, becoming soft and flavourless, whereas this yellow variety is just the reverse. It is a remarkably solid root, and when cooked is delicious. Any vegetable that grows quickly is usually of good quality, and this is the case with this new introduction. The roots are round and rather flattened in shape. Few varieties are more suitable for garden culture. The roots winter well in the open ground, or, if desired, may be lifted and stored in sand or soil in a cool store in December. Yellow-fleshed Turnips are better keepers than the white kinds, and the one named is excellent in this respect. G. WYTHES.

BRUSSELS SPROUTS AND FLAVOUR.

I HAVE observed that large Sprouts are strong and without the mild, sweet flavour so much liked. At the same time much depends upon the cooking. It is surprising the difference in the flavour of a dish of Brussels Sprouts that has been kept boiling and not too much crowded in the saucepan. When given ample room, boiled for fifteen minutes, and drained carefully so that each is served whole, the flavour is much better. There is an idea that huge Brussels Sprouts are the most profitable. I fail to see this, as though

they may be a more marketable commodity, they are not the best for the home. At the recent vegetable show held at Westminster the first prize for this vegetable was awarded to the dwarfest of all Sprouts, Sutton's Dwarf Gem. For years I have advocated its culture for private gardens for its size, solid sprouts, and delicious table quality, and though dwarf the plant is so productive that it is certainly one of the most profitable. Another point that growers should not overlook is that a dwarf Sprout is better in winter and lasts longer. This is a great gain, as the longer good Sprouts are presentable the more varied the vegetable supply. We find that Brussels Sprouts are always enjoyed from Michaelmas to Lady Day, a six months' supply. This is readily maintained when two sowings are made and a variety such as noted above is grown for the purpose. It must not, however, be inferred that all the taller sorts are inferior. This I do not mean, but these need to be selected with care. I have grown an excellent Sprout for years that is not known so much as it deserves to be, and that is May's Northaw Prize. It is not a gross grower but medium, and with the stems closely packed with small, solid Sprouts. The Exhibition is an excellent variety of splendid table quality and compact growth, and there are doubtless others well worth including. I have omitted those that are noted for mere size. It is not fair, however, to condemn any variety unless the best culture has been given. There is no great gain in having a too early plant, I mean by using heat too freely at the start. I remember years ago seeing this vegetable sown in the previous autumn to get large Sprouts, but this is not necessary, as splendid results follow the

sowings made early in the year. The plants are better and more compact, and cleaner. The latter is a point that should not be overlooked, as invariably the large, coarse Sprout is the first one to be attacked by pests, and the quality is inferior. Another important detail is to give the seedling ample room in the bed. Plant out early before too much grown, and by so doing get a good start before midsummer. W.

THREE NEW LEEDSI DAFFODILS.

LEEDSI DAFFODILS have been in common with the other sections immensely improved during the last few years, and there is now quite a large selection of varieties which can be obtained at a reasonable price. When visiting Messrs. Barr and Son's grounds last April I was charmed with some of these beautiful flowers, and on reference to my pocket-book I find the following varieties noted as being specially worthy of culture.

Amazon.—In shape this resembles Duchess of Westminster, and is quite its equal in growth. Perianth segments flat and firm, pure white; cup clear light yellow. A really handsome flower of great substance. Mr. Crosfield exhibited it in his winning group at Vincent Square last April, and informed me at the time that it was one of the most lasting flowers he had grown. As seen at Ditton Hill, it was very free, and occasionally comes with two flowers on a stem.

Fairy Queen.—To those that know this section well this little flower would best be described as midway between those two delightful flowers Elaine and Undine. But the former of these is still very expensive, while the latter is not, as far as I am aware, yet in commerce, so that Fairy Queen, which is only priced at 1s. 6d. a bulb, can be recommended in their place. The plant grows about 16 inches high, and has an extremely graceful habit. The straight white creamy cup is daintily fluted, and the beauty of the flower is still further enhanced by its golden stamens. The perianth is pure white, and of that exquisite semi-transparent texture which characterises almost all the flowers in this section.

Princess Maud.—This received an award of merit from the Royal Horticultural Society in April last year, and may well be described as a greatly improved Leedsii Beatrice. It has been



HYDRANGEAS IN TUBS AT CHIDDINGFOLD.

extremely well exhibited on several occasions, and has been much admired. The broad overlapping segments are rather short, and the whole perianth is of campanulate shape. The short crinkled cup is stained with primrose fading to almost white with age. A really distinct flower of great beauty. A. R. G.

NOTES ON HARDY PLANTS.

A NOTABLE TREE PEONY.

ONE of the finest plants known to me in this county is in the garden of Mr. William Moore, Noverton, Stanford Bridge, near Worcester. It would be difficult to say exactly what is the age of this plant, but I learn from Mr. Moore that it was planted previous to the year 1868. It is growing on a sheltered bank in a good deep heavy loam, and seldom misses giving a grand bloom each year. Kidderminster. A. R. GOODWIN.

ARENARIA MONTANA AND A. BALEARICA.

THE Mountain Sandwort is without doubt one of the most charming of the earlier-flowering rock plants. The flowers are large, being, in vigorous specimens, almost the size of a florin, and of snowy whiteness, while they are borne in such profusion that a plant in full bloom is a mass of blossom. Though accommodating itself to a variety of sites and soils *Arenaria montana* is seen at its best when hanging over a ledge in the rock garden, which it will veil with white for a height of 3 feet. It is an excellent wall plant, being perfectly at home either in the full sun or in partial shade, and the curtain of pure white flowers draping the coping has a very graceful appearance. It is also valuable for edgings or as a carpeting plant. The variety *grandiflora* produces flowers that are no larger than those of well-grown plants of *A. montana*, but its habit is

rather more tufted. It is a native of France and Spain, and was introduced into this country more than 300 years ago. It may be readily increased by cuttings taken in April and May. *A. balearica* is equally pretty, though in a very different way. It delights to creep over damp sandstone rocks, spreading trails of greenery over their surface until the close-growing foliage entirely hides them with a carpet of bright green only a quarter of an inch in thickness. Then, in the spring, this green mantle is spangled with countless little starry white flowers on the slenderest stems, and the plant forms a most delightful picture. It

spreads very fast, and is easily propagated by pulling off a square inch or two of the carpet and dibbling it in the ground where it is wanted. Though partial to semi-shade, it must have a certain amount of sunlight, as it dies in sites never reached by the sun. It has been introduced over 200 years. These two *Arenarias* should be in every garden, for both are charming plants and absolutely dissimilar in appearance. S. W. FISHERBERT.

CHRYSANTHEMUM MARY RICHARDSON.

THIS is a new, rather large, single Chrysanthemum of a beautiful terra-cotta shade of colour. This is most distinct and pleasing, and the variety should prove of value for decoration. In artificial light it will undoubtedly be of great decorative value. This Chrysanthemum was exhibited by Messrs. W. Wells and Co., Merstham, Surrey, before the Royal Horticultural Society on the 7th inst., when the floral committee gave it an award of merit.

THE ROSE GARDEN.

THE PERPETUAL ROSE.

HYBRID PERPETUALS are the most useful of all Roses, and may be said to combine the good qualities of the best garden Roses, for in a certain number we have the rich scent of the Provence combined with the foliage and full rich flowers of the two great sections that have mainly contributed to their production, namely, the China and the Bourbon. Just now our thoughts naturally turn to the subject of planting our favourite flowers, and in forming a plantation of Roses to plant a fair proportion of dwarf bushes as well as standards, and to secure those bushes on their own roots—that is to say, the plants should have been raised from cuttings, and not by grafting or budding, as is necessarily the case with standards. If amateurs would lean towards



TREE PEONY AT STANFORD BRIDGE.



BALEARIC SANDWORT (*ARENARIA BALEARICA*) AND *A. MONTANA*.

own-root Roses, and abandon the custom of planting standards chiefly, they would considerably add to the pleasures of their gardens, for the many disappointments that the inexperienced have to endure in the growth of Roses can be attributed in great part to the prevailing belief in standards as the best form in which to grow the queen of flowers. This is a very important matter, and one but little understood by many. If own-root bushes cannot be secured, those grafted on the Manetti or Briar stock may be planted to form bushes, and a watch must be kept upon the suckers that rise from the root stock. If these are permitted to grow the plantation will soon be worthless. Own-root Roses may be allowed to throw up suckers, for they are necessarily all of a piece, root and branch, and it is their nature to renew themselves in this way. This power of renewal from the root is destroyed by grafting on the Briar stock, and thus the artificial form of this tree has an insecure tenure of existence. Almost any fairly good soil will grow Roses of some sorts, but for vigorous-growing varieties which should produce large and very double flowers the soil must be loamy and liberally manured. The standard Rose being on the English Briar needs a rather stiff soil, which should be deeply dug and liberally manured. Therefore those who have gardens where clay abounds may indulge in standards, and preference should be given to vigorous-growing sorts. Where the soil is thin and stony and dry the best form of Rose is grafted on the Manetti. But a good garden soil will produce good Roses in plenty, whether they be on English Briars, Manetti, or own roots.

T. B. FIELD.

Ashwellthorpe, Norwich.

TEA ROSES.

Now that the planting season is at hand, there is one point that I should like to mention. As regards the relative robustness of Tea Roses, I find that this depends much more on the individual plant than on the variety. After repeated trials I have observed that a healthy, well-grown plant of a sort generally considered rather tender stands a better chance of doing well than a weak, undersized plant of a hardier sort. Those who wish to follow this lead can easily do so by sending a few small trial orders to different nurserymen; they will then see where the strong Roses come from.

RHODA.

ROSE LADY BATTERSEA (H.T.).

WHAT a delightful Rose this is under glass! Plants growing steadily during the last few weeks are now yielding buds in profusion. The colour of Lady Battersea is cherry crimson, perfect in shape, and the blossoms are carried singly upon a long stem. It is a splendid grower, of a vigorous and erect habit, inherited from one of its parents, Mme. Abel Chatenay. Next to

Liberty, there is no better highly-coloured Rose than Lady Battersea for forcing. It deserves a house devoted entirely to its culture. P.

ROSE MME. HECTOR LEUILLIOT (H.T.).

A Rose richer in colour than William Allen Richardson should be of great value. The autumnal flowers of this beautiful Rose may justly

just looping up their growths for the first year or two to a stick. Where extra vigorous summer shoots are made, these bent over would yield some of the lovely buds, the sight of which upon Mme. Hector Leuilliot prompted this note. P.

LATE-FLOWERING ROSES.

THE Rev. David R. Williamson writes to us from Kirkmaiden Manse, Wigtonshire, Scotland, as follows: "Notwithstanding the lateness of the season, and a comparatively recent visitation of frost, many of my Roses are still in bloom. Conspicuous among these are Mme. Pierre Cochet, usually regarded as an improved William Allen Richardson, on a sheltered south wall, a variety of great beauty, and invaluable for late bloom; Mme. Georges Bruant (hybrid rugosa) and the richly-coloured Bouquet d'Or, in a similar situation; Mme. Pernet Ducher and Clara Watson, two of the finest of the Hybrid Teas; Captain Hayward and Marquis of Salisbury; the beautiful Papa Gontier, which flowers profusely alike in summer and autumn; and the almost equally effusive and grandly effective Corallina, with its creamy white companion Enchantress, both natives of Waltham Cross, and undoubtedly two of the loveliest creations of the late Mr. W. Paul, one of the greatest of European Rosarians. Fragrant flowers are still



SINGLE CHRYSANTHEMUM MARY RICHARDSON.

(Shown by Messrs. W. Wells and Co., Merstham, Surrey, before the Royal Horticultural Society on the 7th inst., and given an award of merit.)

lay claim to the title of being the richest in colour of any of the orange red Roses grown. Even Pierre Cochet, splendid as it is, does not surpass Mme. H. Leuilliot. The blooms are full, not very large, but certainly larger than Mme. Pierre Cochet, and also of greater substance. The variety is semi-climbing in habit, after the style of Mme. Charles Monnier, Germaine Trochon, and Gustave Régis, so that if they are wanted as bushes this can be done by very moderate pruning. The four sorts named, planted with Grüss an Teplitz, would make a grand bed or border by planting the bushes 3 feet apart and

obtainable from that sweetest of Hybrid Noisettes, with its pure white, picturequely pendulous blossoms, Mme. Alfred Carrière. China Roses, especially such varieties as Mme. Laurette

Messimy and Cramoisie Supérieure, are still developing their floral treasures with marvellous facility."

The great value of some of the newer varieties of Roses is shown by the fact of their blooming in the autumn equally well in the north as in the south of the British Isles.

GARDENING FOR BEGINNERS.

SIMPLE HINTS.

GALL MITES. — There are several kinds of gall mites, but only three are interesting to gardeners from a horticulturist's point of view—the Currant Gall Mite (*Phytoptus ribis*), the Nut Gall Mite (*P. avellanæ*), and the Pear Gall Mite (*P. pyri*). The first two attack their victims in a similar way, so

Pear leaves in a very different manner, as it forms small blisters like galls on them. The mites begin to attack the leaves when they are unfolding, and the galls show as small thickened spots, in the centre of which, on the under-side of the leaf, is a small opening; the eggs are laid in these blisters, and the young mites soon leave the gall and begin to form fresh ones. In this way the

leaf quickly becomes covered, and so rendered useless. The best remedy is to pick off the infested leaves as soon as the attack is noticed, and trees that are too large to be treated in this way should be sprayed with paraffin emulsion, diluted with five times the amount of water, any time during the winter, that is, before the buds begin to swell in the spring. Take care that every part is wetted, and particularly the terminal buds, which are most liable to be attacked.

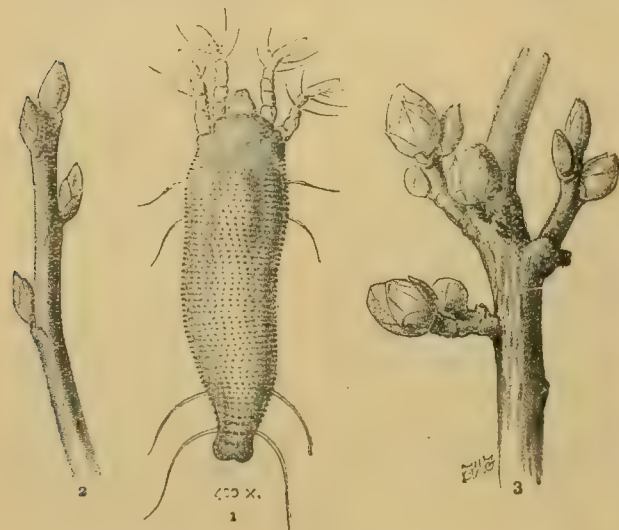
The Poppy Anemone (*A. coronaria*).—This beautiful old plant should be in every garden where cut flowers are wanted. No one need buy roots, as they are so easily raised from seeds, and seeds are cheap. I have sown in March for early flowering, both in boxes in a frame and also outside in well-prepared beds. Though this Anemone is not particular about soil, provided it is well broken up and enriched with old hot-bed manure, nothing rank should be

the soil. Very few people think the lawn wants manuring, and weeds grow because the grass fails. If the lawn was top-dressed when the grass grew weakly, many of the small weeds would be crowded out. Those who have weak turf should top-dress now with 5lb. of basic slag per square rod, and in February or March give 4lb. of nitrate of soda per rod.

The Wood Anemone (*A. nemorosa*)—In some districts this is very common in the woods, and it is a pretty little plant for shady banks in association with Aconites and Primroses. The double-flowered variety is beautiful in a group on the rockery in the shade. The Pasque Flower (*A. Pulsatilla*), though not common, may be found wild on the chalky downs round the South Coast, flowering about Easter.

The Bush Honeysuckle (*Weigela rosea*) was introduced something more than fifty years ago. It was grown as a greenhouse plant at first, but was soon found to be quite hardy, and is now to be found in much variety in many gardens. It is easily propagated from cuttings or layers, and also from seeds. There is now much variety in colour, and it is one of the best shrubs for early forcing. The flowers are useful for cutting, especially in the case of the beautiful grandiflora, which has larger blooms. The plants originally came from China, but Continental florists have raised many new varieties by intercrossing. *W. hortensis nivea* has large pure white flowers, and is worth growing in pots for early flowering in the conservatory or for cutting. The botanists, being a restless race, have decided that *Weigela* should be changed to *Diervilla*, as being the more correct name.

Cordon Gooseberries.—Although this form of training is not so often seen as the ordinary bush plant, it has some advantages. When in this form Gooseberries may very conveniently be grown against an espalier, which is represented by dotted lines in the illustration. Cordon Gooseberries may be trained either with single, double, or treble stems. Each of the latter should be 6 inches or 8 inches apart, so that double and treble-stemmed plants must, of course, be placed wider apart than those with single stems. The management of espalier Gooseberries is simple. Allow the leading shoots to grow throughout the



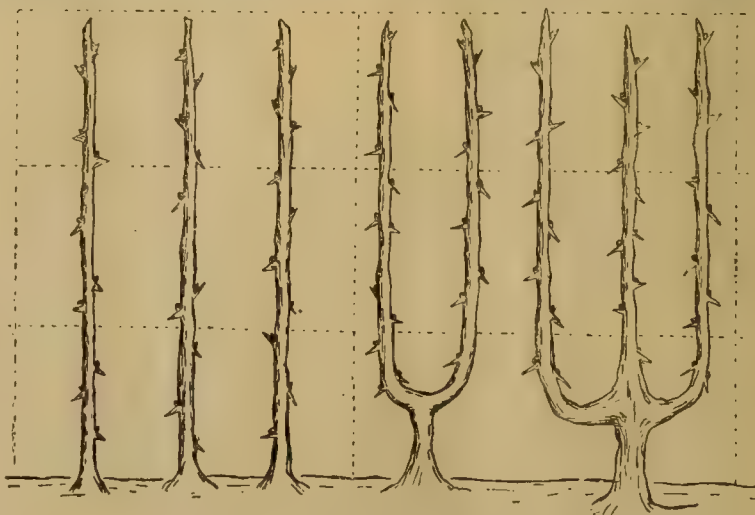
GALL MITES.

1. The Black Currant Gall Mite, mag. 400 times. 2. Twig of Black Currant with healthy buds. 3. Twig of Black Currant with infested buds.


much so that one may employ the same methods of destruction in both cases; the mites themselves are so much alike that they may be really the same species. These mites live in the buds, and a large number generally may be found in the same bud. The result of these pests feeding on the juices of the unopened leaves is that the latter do not open with the others, but merely swell to a certain extent. When, as is sometimes the case in a bad attack, nearly every bud on a Currant shoot is rendered "blind," the injury to the crop is very severe. Black Currants are much more frequently attacked than red or white ones. This is a very difficult pest to get rid of, for as the mites are so small as to be invisible without a magnifying glass, and as no insecticide can reach them when they are within the buds, it is a matter of some difficulty to know how to proceed. When a shoot has several infested buds on it, cut it off and burn it; if only one or two pick off and burn them. When pruning bushes that have been attacked, cut them back very hard, and the stumps of the shoots should be dressed with paraffin emulsion. The galls leave the old and then dying galls about the end of June, collecting at the base of the leaf stalks, and infesting the new buds as soon as they are large enough. This would appear the time to apply an insecticide to the bushes, but as the fruit is ripening it is difficult to do so. These mites are long, narrow, and somewhat cylindrical, and about four times as long as they are broad. They are very minute, being not more than 1-200in. in length and of a milky white colour. They may be distinguished from other mites by having only two pairs of legs instead of four, and these legs are placed close to the head, but at the other extremity of the body there is a kind of sucker foot. The Pear-leaf blister mite (*Phytoptus pyri*) greatly resembles the foregoing species in appearance, but it attacks the

used. The chured stuff from the refuse fire is useful as a top-dressing. When one has a good strain and can save seeds, sow as soon as the seeds are ripe, but I have sown any time between March and June. The seed-beds should be kept moist and shaded until the plants appear, and when the plants can be individualised a light top-dressing or mulch of old manure or leaf-mould passed through a half-inch sieve will be beneficial and keep the moisture in the ground. If sown thinly in shallow drills the plants may be left to flower where sown; if sown in boxes they must, of course, be pricked off about 6 inches apart on deeply-worked ground and watered in dry weather. The fluffy seeds cling together, and should be rubbed in sand to separate them before sowing. The St. Brigid, an Irish variety, is a beautiful form of this Anemone, and the Dutch and French have types of the same flower which are worth attention.—H.

Manuring the Lawn.—One of the reasons why lawns get into a weedy condition is the poverty of



SINGLE, DOUBLE, AND TREBLE CORDON GOOSEBERRIES.



summer and cut them back slightly every winter until the top of the trellis is reached. In the month of June pinch back to six leaves all vigorous side shoots, and in winter cut them back to within about half an inch of the older wood, to form fruit spurs.

Gooseberry Cuttings.—The Gooseberry is a plant that is easily increased, and the best method of raising a fresh stock is by means of cuttings. These are made from shoots of the previous summer's growth. The best time to take them off the bushes is in the autumn when the leaves fall. They should be made from 12 inches to 15 inches long. In selecting shoots from which to make the cuttings choose firm, short-jointed wood, discarding that which is thin and long-jointed. It is all important to have thoroughly ripened wood for cuttings. Choose straight shoots also. Remove all the buds except those within about 5 inches of the top of the cutting. The growths that will eventually develop from these buds form the first branches of the bush. Insert the end of the cutting from which the buds were removed 5 inches or 6 inches deep in the ground. It is not possible to obtain all the cuttings any certain length; but this does not matter. The chief point is to have a firm well-ripened shoot, with the lower buds removed as explained, sufficiently long to be placed 6 inches in the soil, and then leave a stem 8 inches to 10 inches above ground.

A GOOSEBERRY CUTTING.

Take care to remove the lower buds effectually, or they will subsequently give rise to sucker growths, which are difficult to eradicate without injuring the roots. When the cuttings are prepared as described they should be inserted in rows in a shady border. The rows may be 12 inches apart, and the cuttings 6 inches distant from each other in the row. Now is the time to do this work. The cuttings may be left where planted until next autumn, when they should be lifted and replanted in rows 18 inches apart, 12 inches being left between each plant.

What is Meant by Perfect Rest?—It means that the growing forces are as dormant as they can be. There is no perfect rest; Nature is always working. The frost is the greatest resting agent. I have often noticed how quickly Seakale responds to heat when the crowns have been exposed to frost. Lily of the Valley crowns always move with more freedom when they have been exposed to a low temperature. Of course, the roots are not exposed, as the drying effect may cause injury, but when the crowns of Lily of the Valley, Seakale, Rhubarb, or Strawberry plants have been exposed to a low temperature the growth is stronger and more equable when forcing begins, which seems to prove that the rest has been beneficial. No doubt there is a point beyond which this enforced rest may be harmful. The drying influence of frost when the crowns of plants are exposed is considerable, but that point is not often reached in our climate, and a few leaves or a very light covering of Bracken will check this.

Covering for Bulbs after Potting.—The books tell us that Hyacinths and other bulbs which have been potted for forcing should be plunged in ashes for six weeks or so while making roots. The question which has been and may be raised is, Is this necessary? We need not throw any doubt upon the success of the old plan of plunging in ashes or fibre, but where many bulbs are forced the plunging takes time and material. The tendency nowadays is to shorten all operations, if it can be done without any sacrifice of efficiency. In forcing Tulips, Hyacinths, and Narcissus now,

instead of plunging we stand the pots close together and cover with Rushes or long litter. Leaves answer the same purpose. The reason why Hyacinths when making roots push themselves up in the pots is that the soil in the bottom of the pots is pressed down so firmly that the roots cannot penetrate it easily, and the force works upwards, but when the soil under the bulbs is left moderately loose, so that the roots can enter, there is no movement upwards and no necessity for weighting them down with ashes or anything, and a light protection of litter or leaves will suffice.

In Planting Bulbs in the garden we do not make the soil hard by pressing underneath before inserting the bulb. The hole is made, the bulb placed therein at the right depth, a little sand scattered over and under it unless the soil is sandy, and the earth closed in. This is the natural method, and it answers well.

An Interesting Parasite.—Mr. J. Martin kindly sends from Camberwell a photograph of a strange parasite. The illustration shows it very well.



AN INTERESTING PARASITE (OROBANCHE MINOR) GROWING ON GERANIUM.

Its name is *Orobancha minor*, and it is a parasite on Clover, Thyme, and other things, and also occurs on the Geranium, as represented.

Pampas Grass.—This is in many places particularly fine during the present autumn, and very beautiful it is with its mass of long, arching, gracefully-disposed leaves, well overtopped by the silvery plume-like heads, which are so distinct from everything else, except it be the New Zealand *Arundo conspicua*. The Pampas Grass has been grown in this country for nearly sixty years, and during the greater part of that time it was known as *Gynerium argenteum*, till half-a-dozen years ago or so some of our botanical authorities changed it to *Cortaderia argentea*. The ordinary form of the Pampas Grass with its silvery plumes is the most generally met with.—H. P.

GARDENING OF THE WEEK.

FLOWER GARDEN.

PROTECTING SHRUBS.—As severe and wintry weather may now occur at any time, precautions should be taken at once to lessen the extent of damage from sharp frosts and cutting north-easterly winds to comparatively tender subjects. Keen winds in very many cases are more destructive to shrubs and conifers than severe frost, so that it is imperative to provide wind breaks of some description to break their force. The nature of these protective screens depends to some extent on the size of the plant to be protected. A mat or two or a burden of Bracken may suffice in many instances, but for taller specimens or groups different methods must be adopted. Mats or any material of a close texture are not suitable, as they cannot be fixed securely enough to withstand the wind pressure in exposed positions. In such cases we find strong iron hurdles with a superstructure worked of poles, rods, galvanised water-pipes, or anything suitable that is available, and all well wattled (but not too thickly) with evergreen boughs, answer admirably. Should greater precautions be considered advisable, a wall of loose, dry Bracken laid between the screen and the plant will increase protection. These temporary shelters are also of great assistance to newly-planted trees and shrubs exposed to northerly winds, and should be fixed in such exposures wherever possible and practicable.

SNOW must not be allowed to accumulate, but be shaken off even during the fall—if a calm and prolonged one—or broken leaders and split and splintered important well-placed branches will be the inevitable result.

OVERHAUL THE ROCK GARDEN.—Lift or reduce spreading plants and tufts that are overgrowing choicer and less robust ones, pull up those that are dead, cut off all decaying leaves and stems, and, after weeding carefully, make up wastage of soil in pockets and nooks by adding fresh, which should be light and clean. Old potting soil where available is most useful for the purpose. This done top-dress the whole with coarse, partly-decayed leaf-mould, and all will be snug for the winter. Certain plants will, of course, need special care. Some may be the better if an "umbrella" in the way of a bell-glass or cloche were used to throw off the rain and snow from their hearts and crowns. Others will require extra protection about the roots against hard frost, while yet others may be crippled if north-east winds are permitted to rustle through their stems and foliage, therefore they must have shelter screens of some kind. These details must be attended to without further delay.

DECIDUOUS TREES AND SHRUBS.—Leaves should be collected and the best and driest—Oak and Beech—stored under cover for future use in the making up of mild hot-beds for raising the various plants requisite for furnishing flower-beds and borders during the summer, and which require a gentle heat to start from seed or from cuttings. The remainder must be heaped up and prepared for leaf-mould, which will come in very useful for digging in and mulching later. It is an excellent rooting medium, both worked in the soil and as a top-dressing. As a mulch it keeps in moisture, and is also an efficient protection against frost when only in a partly-decayed state. Brush up all litter inseparable from this season, and maintain tidiness and neatness as far as possible under the circumstances.

JOHN ROBERTS.

The Gardens, Tan-y-bwlch, North Wales

INDOOR GARDEN.

CINERARIAS.—Keep these near the roof-glass in a cool house or pit to encourage short, sturdy growth. Raise the plants by placing them on inverted pots, if necessary, to get them nearer the glass. Only sufficient fire-heat to keep out frost should be given. Weak liquid manure will be beneficial to the plants rooting freely in the flowering pots.

PELARGONIUMS.—The earliest of the show varieties cut back are ready for potting on; others have broken sufficiently to be shaken out and repotted into a size or two smaller. Fumigate every twelve or fourteen days, as they are very liable to the attacks of green fly. The winter-flowering zonal varieties should now be at their best. Gum the flowers of the single varieties to make them last a little longer. Helped by a little fire-heat the atmosphere of the house will be buoyant.

CHRYSANTHEMUM FRUTESCENT VARIETIES (Marguerites). These are giving an abundance of flower, and if fed frequently will continue to do so for some time. By rooting cuttings at different times they can be had in flower with little trouble throughout the year in a cool greenhouse. Several new varieties have recently been introduced. Queen Alexandra, a semi-double variety, is very free-flowering. Golden Sun is one of, if not the best yellow variety.

COLEUS THYRSOIDES—In an intermediate house these are filling the flowering pots with roots, so can be given a little weak manure water once or twice a week. If stopped more than twice a lot of weak shoots and poor flower-spikes are usually the result. Restrict each plant to four or five shoots, giving them plenty of room to induce short, sturdy growths. If the house in which they are growing is fumigated, the Coleus must be removed temporarily, as even light fumigation scorches the leaves.

RICHARDIAS (Arum Lilies).—The pots of *R. ethiopica* are well filled with roots by this time, and may be fed liberally. A temperature of 45° to 50° Fahr. will be

ample for them at night, rising 5° or so by day. When higher than this the foliage is liable to become drawn and the flowers weak. The Gudefrey, a comparatively new variety, is more free in flowering; chidiana is a good dwarf variety. Pot up a few of the stronger rhizomes of *R. elliptica*, using a compost of equal parts of fibrous loam, peat, and leaf-mould, adding plenty of sand. Place in a temperature of 50° to 55° Fahr. by night, and 55° to 65° Fahr. during the day. They will require very little water for some time.

FORCING PLANTS.—During this season work is in progress outside, such as lifting and replanting trees and shrubs. When they are becoming too thick in the borders, or the beds of *Azalea mollis*, *Rhododendrons*, *Prunus*, and *Lilacs* are crowded, an excellent opportunity is given to obtain large plants for forcing. They can be either lifted and planted in the conservatory, if the building is suitable, or potted up in the ordinary way and brought on in a forcing house.

PLANTS RESTING.—*Fuchsias*, *Cannas*, *Agapanthus*, *Lantanas*, *Hydrangeas*, &c., must not be entirely forgotten during the resting period. Look over them occasionally to see that they are neither too wet nor the soil becoming parched. If under a stage, drip from plants which are watered above often does harm.

CHRYSANTHEMUMS.—Insert a few cuttings of suitable varieties to grow into large specimens.

Royal Botanic Gardens, Kew.

A. OSBORN.

FRUIT GARDEN.

PRUNING.—The pruning of fruit trees should be proceeded with whenever favourable opportunities occur, beginning with wall trees first. Cherries, Plums, and Apricots are usually dealt with first.

MORELLO CHERRIES.—These are pruned much in the same way as the Peach, the fruits being borne on the previous season's growth. In the case of old trees which are covering their allotted space, old unsightly branches should be removed to allow plenty of young wood to be laid in. This will throw more vigour into the centre of the trees and considerably improve their appearance. It is invariably the case to see trees of the Morello Cherry crowded with wood, and although such trees produce large crops of fruit, the fruits are small and poor in quality. Leading shoots on young and growing trees should be cut back at about a third of their length to encourage them to break well from the base.

SWEET CHERRIES.—Assuming that the summer pruning was properly carried out, there will be little to do now except to shorten the stubs which were cut back in the summer within 2 inches or 3 inches of the base. The same remarks as to Morellos with regard to overcrowding may be applied here. The fruits of the sweet sorts are produced on spurs which form along their branches. It is essential that these be well exposed to light and air to make them fruitful. The branches should be not less than 9 inches apart, and even 1 foot is not too much for some of the larger foliage varieties.

APRICOTS.—Very little pruning will be required now. The disbudbing and pinching in the early summer constitute the major part of this work. Young shoots will have been encouraged where possible. Some of the finest fruits are produced on these shoots. To make room for their training the shoots which have fruited must be cut out, and the new growth trained close to the main branches, so that another shoot can be laid in next year. A moderate sprinkling of spurs must be encouraged along the branches. Any which are becoming ungainly and exhausted may be cut away.

PLUMS.—These may be given similar treatment to Apricots. It is not profitable to keep old exhausted trees, although much may be done by encouraging young growths to take the place of old branches, which have become unsightly, if they are taken in hand in time. Shorten the leading shoots of young trees. The centre of the trees must not become too crowded, as their future welfare depends to a great extent on their proper management while young. If the work of disbudbing and pinching were not properly carried out during the summer, a judicious thinning of the wood will now be necessary. This must be done very carefully or gumming will ensue.

E. HARRISS.

Fruit Department, Royal Gardens, Windsor.

ORCHIDS.

PLEIONES, OR INDIAN CROCUSES as they are sometimes called, generally produce their lovely flowers at this period, and if care be taken that no water is allowed to fall on them they will remain fresh for a considerable time. *P. maculata*, *P. m. alba*, *P. lagenaria*, *P. concolor*, *P. precox*, and *P. wallichiana* are worth including in any collection. They are easily cultivated, and when well grown produce a large number of flowers which are exceedingly useful for decoration. They also produce a beautiful effect when seen by artificial light. The flowers are also useful for button-hole work, and may be easily gathered by giving them a gentle pull, when the stem will readily part from the young breaks and will be much longer than when cut. As soon as the flowers are over the plants require immediate repotting, an operation which should be carried out before the new roots push out from the base of the new growths. As these roots lengthen rapidly, and are easily broken when handled, the work must not be delayed. Turn the plants out of their pots, and remove the greater part of the old soil from the roots, cutting away all those that are dead. It is not necessary to pull the old bulbs apart and bed them out as is sometimes recommended, but simply to repot them in clumps, about a dozen pseudo-bulbs in a 6-inch pot, the bulbs

almost touching each other. When thus kept in clumps the check seems to be much less, as often when the plants are in bloom they emit a number of young roots. When the bulbs are separated these tender roots get so injured that they do not start away so readily again. Pots or shallow pans may be used, but those who prefer to grow their plants suspended to the roof will find pans the most convenient. Which ever is used they must be well drained, for although fond of copious waterings during the growing season it is necessary that it should pass away quickly. Over the drainage place a thin layer of sphagnum moss, then one of the potting material, upon which the base of the clump should rest. Any bulbs which may have grown beyond the main clump may be removed and be used for increasing the stock.

For a few weeks little or no water is required, because the young growths are very liable to turn black and decay if the soil is wet, but when the shoots start to grow vigorously water may be sparingly applied. Then as the roots and leaves develop so must the quantity be gradually increased. After much root, with corresponding foliage, has been made supplement the usual waterings with weak liquid manure water about once a week. The cooler varieties, as *P. humilis* and *P. hookeriana*, succeed best when suspended to the roof of the Odontoglossum house. These having now completed their growth require very little water, but sufficient should be given to prevent the pseudo-bulbs from shrivelling. These species generally flower about January or February, and until that time they should not be disturbed by repotting.

ORCHIDS IN BLOOM.—In some collections the pretty yellow-flowered *Oncidium cheiporum* is in bloom, while in other places the spikes are only just appearing. These plants should be hung close to the glass of the intermediate house until the flowers are fully developed. Plants of this species should be sparingly watered at all times, and especially after flowering, or the small pseudo-bulbs and leaves will rapidly decay. Another charming little Orchid in bloom is *Angraecum distichum*. Its numerous small white flowers have a delightful fragrance. *A. pectinatum* is also in bloom; it is a very pretty small white-flowered species. Both plants thrive well in a shady part of the warmest house. They appear to grow better in shallow pans than in baskets, and only require a thin compost of sphagnum moss to root in.

Burford Gardens, Dorking.

W. H. WHITE.

KITCHEN GARDEN.

MANURING.—Whenever the ground is sufficiently dry and hard with frost loss no time in getting manure wheeled on. This job may be successfully performed on frosty mornings, when the ground that is to be manured will carry the wheelbarrow loads without making much impression on the surface either with the feet of those who perform the work or with the wheel of the barrow. When the ground is in this condition the work can be accomplished more quickly and easily. I have frequently made it a practice to have manure placed on the plots when the ground is dry, then, should frost be prevalent, digging is not delayed. Working on garden plots while they are wet should be avoided as much as possible. Ground that has been either dug or trenched may have copious supplies of liquid manure. Whenever this potent fluid can be had it frequently happens that supplies are more plentiful than in dry weather; consequently, the surface of the soil is wet, and some precaution must necessarily be taken to avoid treading on the surface when applying the liquid. Long wooden paling spars should be pushed along the ground from both sides or all round the plot to tread on while throwing on the manure water. Ground that is to be occupied with Onions next season can scarcely have too much of this stimulant. Even in frosty weather, when the liquid tank is full, I never hesitate about applying it rather than allow it to overflow and waste. Another excellent manure for the Onion plot is

GAS-LIME, only here careful handling is requisite. It should be applied at once, and sparingly spread over the ground in order that it may remain as long as possible before the crop is put in. Gas-lime, fresh from the gas-house, is lumpy, and requires breaking up as finely as possible. Another way in which gas-lime can be turned to good account is to mix it with some stuff that may have accumulated at the rubbish heap. A compost like this that has lain for some months after being mixed makes a first-rate top-dressing at planting time for root crops.

EARLY POTATOES.—Young Potatoes are looked for so early in the season that the sooner they are planted the better. In my opinion Sutton's Ash-leaf ranks first in the matter of flavour, though other varieties may be a few days earlier and have a better appearance. These should be placed in shallow boxes on the top of a few inches

of leaf-soil, covered with moss, and placed in a forcing house to start them into growth. Formerly we have been in the habit of growing our first batch in pots, now the frame hot-bed method is adopted, which is, considering quantity and quality, better than the pot system. Where plenty of Oak or Beech leaves and horse manure can be obtained a good hot-bed may be prepared in the usual way in a very short time. The quantity of heating material will depend on the size of the frame to be used. When this is ready and the Potato sets fairly started, let them be planted as soon as possible in rows about 18 inches apart, parallel with the sash-bars, two rows to each sash. Leaf-soil on the top of the heating material is the stuff to produce finely-flavoured Potatoes.

CAULIFLOWERS AND BROCCOLI.—Late plantations of the former and early Broccoli require attention by breaking over some of their own leaves to cover the hearts that they may be safe from frost. Here Walcheren Broccoli exceed the demand at present, and that none may be wasted they are being lifted and laid into deep cold frames after they have been freed from their lower leaves, which show signs of decay. With abundance of air they keep in these frames in good condition for a considerable time.

JAMES JEFFREY.

The Gardens, St. Mary's Isle, Kirkcudbright.

NURSERY GARDENS.

MESSRS. KELWAY AND SON,
LANGPORT.

REFERENCE to the flower farms of Messrs. Kelway and Son, Langport, Somerset, may seem inopportune at the present time, but from one point of view, at least, it is not so. Everyone knows that the glorious masses of *Pæonies*, *Pyrethrums*, *Delphiniums*, and other choice summer flowers with which the name of Kelway is indissolubly connected are the result of careful planting in the autumn of the previous year. Although the fields are now bare, anyone who has seen them in summer-time, when the grand varieties of those flowers which Messrs. Kelway and Son have made their own cover the soil with brilliant colourings, can picture in their imagination the Kelway flower farms in full beauty. Herbaceous *Pæonies* are among the finest plants for the flower garden. Their bold growth, handsome leafage, and



FOUR OF KELWAY'S NEW PÆONIES.

masses of blossom render them unique, and no gardener that values good groups of flowering plants can afford to be without them. Such varieties as those Messrs. Kelway exhibit at the Temple show of the Royal Horticultural Society represent the very finest forms of this flower, and would add grace and beauty to any bed or border. Among new Pæonies raised by Messrs. Kelway are those which we are able to illustrate, namely, Lady Curzon, with cream-coloured centre, outer petals white, while there is a faint blush tinge over all; Mountebank, with pink guard petals and a lemon-coloured centre; Mrs. Gwyn Lewis, dwarf, white, and scented; and Moonlight, a very beautiful pure white variety. There are numerous other varieties described in Messrs. Kelway's "Manual of Horticulture," a book that all gardeners, both amateur and professional, ought to obtain.

It is impossible to over-estimate the value of the many lovely varieties of single and double-flowered Pyrethrums which Messrs. Kelway and Son have introduced. The "poor man's Chrysanthemum," as the Pyrethrum is sometimes called, on account of its hardiness and free flowering, is invaluable in the garden, whether large or small, and especially so now when there are so many excellent varieties to choose from. Among Messrs. Kelway's new Anemone-flowered Pyrethrums we might mention Aunt Nancy, white; Cockles, ochre yellow; John Craddock, rose, with lighter centre; Little Upton, flesh colour; Martin Tyrer, deep rose; Tom, deep flesh colour; and Young Bob, very bright rose.

To commence writing about Kelway's Delphiniums or perennial Larkspurs is to enter upon a large subject, to which justice could only be done by filling many columns. This indispensable flower, beloved of the cottager and prized in the mansion garden, too, has been greatly improved in form and colour and in other ways by Messrs. Kelway and Son, and, largely owing to their efforts, perhaps no flower is more popular to-day than the perennial Larkspur, and none gives greater satisfaction to the planter. There are now lovely varieties in shades of blue, violet, rose, plum colour, lavender, cream, &c., but even a selection from the shades of light blue and dark blue alone will supply a charming range of colour. The varieties are so numerous that we will refer only to a new race of white Delphiniums that Messrs. Kelway have raised. Of these there are Beauty of Langport, a beautiful clear, soft creamy white flower, with a pale buff eye; and Primrose, which has white sepals and a yellow eye. These form quite a new break in Delphiniums. The splendid individual flowers of the new varieties and the fine display they make in the garden landscape are well shown by the illustrations in Kelway's "Manual of Horticulture."

Messrs. Kelway have a beautiful lot of the Japanese Iris (*Iris Kämpferi*), a flower that is unequalled for size and glorious colouring, and that gives a character to a stream or pond that no other plant does. The various other sections of Irises are also well represented here. Roses, too, are an important feature of Kelway's nursery, and it will be found that all the best varieties are included. Their "Manual" gives some delightful illustrations of Roses, none, perhaps, more interesting than that of Rose Lamarque growing upon a south wall. This is a lovely white Rose, with sulphur-yellow centre, and is not commonly met with.

By calling attention to these few races of plants in Messrs. Kelway's nursery, we do not wish to seem to dwarf the importance of the hundreds of other plants grown there. Take Gaillardias, Gladioli, Paloxes, or, in fact, any hardy herbaceous border plant you wish, and you will find that each is strongly represented in this Somerset nursery. Alpine and other plants suited to rock gardens, hardy biennials, hardy climbers, trees and shrubs, bulbs, and fruit trees, too, are all largely cultivated here.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, W.C. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

Legal Points.—We are prepared to answer questions of law which have anything to do with the subject of gardening and forestry. The questions should be as clear and explicit as possible, so that there can be no doubt as to the point of the question. Answers will be found in a separate column headed "Legal Points."

FLOWER GARDEN.

TURFY LOAM FOR CHRYSANTHEMUMS (T. R.).—From the description you give of the loam, we should think it is of very poor quality and unsuitable for Chrysanthemum culture. Fibrous loam is essential in a suitable compost, and you had better obtain some of the best possible if you wish to succeed. Without seeing the soil it is impossible to advise you satisfactorily. You had better ask the opinion of a thoroughly practical gardener or nurseryman in the neighbourhood, who should give you the information you desire. Two good books on Chrysanthemum culture are "Chrysanthemums for Garden and Greenhouse," by D. B. Crane, published at 2s. 6d., by Messrs. W. H. and L. Collingridge, 148, Aldersgate Street, London, E.C., and "Chrysanthemums and How to Grow Them for Exhibition," from the same office, at 1s.

PRIMULA CASHMIRIANA (Lima).—This plant has a natural tendency to flower in the late autumn, especially if the weather is mild, and the result is that the blooms are nipped with the frost before opening. The best way to treat plants that way disposed is to pinch off all flower-heads that show in the autumn, and sometimes new ones will be formed by spring, although the autumn flowering usually exhausts the plants, so that they do not produce any more in the following spring. The best way to get this plant to flower properly is to raise seedlings in early spring in a little heat, and when they are large enough plant out in a cool shady spot in rich soil. In the autumn they may be moved to their flowering quarters, and in the spring following they may be expected to push up some good flower-heads. P. denticulata often produces heads of flowers in autumn if the weather is mild and they are planted in sheltered positions.

VARIOUS QUESTIONS (M. R.).—(1) We do not believe you will grow Narcissi with any success under the Pine trees. The best things to plant in that position are Ivy, Euonymus radicans and its variegated form, Periwinkle, and St. John's Wort (*Hypericum*). If these do not succeed then we are afraid nothing will. Of course you may have a certain measure of success if planting is not done too close to the trees, but do not risk many bulbs. We have never heard of the foliage of Pine trees poisoning plants. (2) Yes, cut the blossoms from the Roses if you wish it certainly. It makes no difference to the plants of the popular double varieties whether you cut the blooms or not, for they do not seed unless artificially fertilised. Roses appear to have suffered a good deal from blight and mildew this year. (3) Rhododendrons and Azaleas grow splendidly together; both like the same sort of soil. Unless the Rhododendrons are really good named varieties we should

cut them back to make room for the Azaleas. Very likely they are of the old ponticum type, and therefore not of much value. (4) You should try *Polygonum baldschuanicum* for growing up the Pines. You will find it even more satisfactory than Ivy. Honeysuckle and such rambling *Roses* as *Flora*, *Crimson Rambler*, *Mme. d'Arblay*, *Alberic Barbier*, *Dorothy Perkins*, *multiflora*, and *Mme. A. Carrière* are quick growers, and if you give them deep rich soil they will make a splendid show even the second year after planting. *Clematis flammula* or *C. vitalba*, *Aristolochia Siphon* (Dutchman's Pipe), *Lathyrus latifolius* (Everlasting Pea), and *Vitis Coignetiae* would suit you.

MERTENSIA MARITIMA (A. M. Norway).—This seaside plant is somewhat difficult to keep for any length of time away from the influence of the salt air obtained in its native habitats. It is quite hardy, and will stand any amount of frost, as it is only found in the more northern parts of Europe and Asia, while sun to any extent is fatal to it. The collected roots should be planted in a cool and somewhat shady place facing north-east in sandy or stony soil. In the summer time when it is growing it should have plenty of moisture. Many of the plants of this order are difficult to establish from collected roots, and it is far better to collect some seeds and raise stock in this way. Seedlings are easily raised from fresh seeds, and should be grown on in small pots plunged in some cool spot. Very sandy soil should be used, and when they have made good-sized plants they may be placed out in their permanent position. Sea salt mixed with the soil and applied occasionally after as a dressing will be found beneficial. Slugs are very fond of this plant, and often prove very destructive.

Constant Reader.—Twelve of the best Cactus Dahlias for exhibition are as follows: *Mrs. Edward Mawley*, *J. H. Jackson*, *J. W. Wilkinson*, *Britannia*, *Lord Roberts*, *Mrs. Carter Page*, *Alpha*, *Mrs. Winstanley*, *Ajax*, *Clara G.*, *Stredwick*, *Galliard*, and *Vesta*. You will find all these fully described in the catalogue of any good Dahlia grower.

A. A. G.—The seedling Pink sent is one of the numerous forms of the Chinese Pink (*Dianthus chinensis*), of which there is an endless variety. It has no varietal name, although it is a distinct and richly-coloured variety and evidently very free. The Chinese Pink has been hybridised to a great extent, and there are many beautiful forms in cultivation.

Denmark.—You do not say which *Hydrangea* you possess. If it is *H. paniculata grandiflora*, then you need not trouble about the weather, for this sort is very hardy. In February cut back the shoots to within a foot or so from their base. New growths will start, which eventually will be crowned with heads of blossom. You may know whether the *Hydrangea* be of the variety named by its deep brown-coloured shoots and large pyramidal heads of white flowers. If it is *Hydrangea hortensis* then your wisest plan will be to keep the plants in your room until all danger of frost has gone.

C. E. T.—In a pond fed by a field surface drain Water Lilies or any other floating foliage plants would not be likely to succeed, unless some means were provided for keeping the pond full in dry weather, and then only the very hardiest and most robust varieties should be chosen, as the temperature of the water would be continually on the rise and fall. The water must be 2 feet deep with 6 inches of mud, 9 inches would be better, so that you would require a concrete basin 2 feet 9 inches. But in 16 inches of water and 8 inches of mud you could grow any of the *Sagittarias* (Arrow-head), *Calla aethiopica* (Arum Lily), *Butomus umbellatus* (flowering Rush), *Pontederia cordata*, *Cyperus longus*, and *Orontium aquaticum*.

TREES AND SHRUBS.

RHODODENDRON KAMTCHATICUM (Rock).—The best situation in which to grow this plant is near the water side or in a bog which is well drained. It should be planted in a mixture of sphagnum moss and peat, using only the fibrous part. A little sand should also be added, with a small portion of charcoal, and the whole should be well mixed up together before planting. If a bog or water is not available, it should be planted on the lower part of the rock garden in the same compost, and abundant supplies of water should be given frequently. As this *Rhododendron* only grows from 3 inches to 6 inches high, it does not require much room, for a good-sized plant will not be more than 6 inches in diameter. It is deciduous, losing all its leaves annually, and,

being somewhat of a surface-rooting plant, a good top-dressing of the same kind of compost as that in which it is planted should be applied periodically.

Perplexed.—You may cut the Laurels now. Do the cutting with a knife, and not with the garden shears.

Planter.—You could not have a more suitable shrub for the purpose than the Sea Buckthorn (*Hippophae rhamnoides*), which is strikingly bright with its thick clusters of orange-yellow berries.

Seaside.—You might make a hedge of Tamarix; it would be far more beautiful than one of *Eunymus*, although the latter is an excellent seaside shrub.

ROSE GARDEN.

FORTY GOOD ROSES (*Mrs. Van Notten Pole*).—You will find the following a good selection of dwarf hardy Roses for massing in beds:—*Whites*: Augustine Guinoisseau, Edith Gifford, Marchioness of Londonderry, Clio, Boule de Neige, Enchantress, Kaiserin Augusta Victoria, and White Lady. *Yellows*: Marie van Houtte, Mme. Hoste, Medea, Isabella Sprunt, Gustave Regis, Anna Olivier, Mme. Pernet Ducher, and G. Nabonnand. *Pinks*: Baroness Rothschild, La France, Caroline Testout, Heinrich Schultheis. Common China, Captain Christy, Mrs. John Laing, and Mrs. W. J. Grant. *Reds*: Grüss an Teplitz, Crimson Queen, Cheshunt Scarlet, General Jacqueminot, and Ulrich Brunner. *Other colours*: Viscountess Folkestone, Dr. Grill, Maman Cochet, Mme. Lambard, Mme. de Watteville, Francisca Kruger, Laurette Messimy, Corallina, Camoens, Grace Darling, and Mme. Abel Chatenay. The varieties are placed roughly in colour sections.

SCREENS FOR ROSES (*Kingston*).—Use either *Thuja Lobbii* or *Cupressus lawsoniana*, and although they would grow to a greater height than 6 feet if desired, yet their leaders may be taken out and they may always be kept at this height. Common Yew makes a splendid shelter hedge, so also does common Holly, but they are so very slow in growth. The oval-leaved Privet, too, is very good where it will hold its foliage through the winter. You would find the *wichuraiana* Roses excellent. Some temporary screens could be made for the Roses to run upon, and in about two years you would have a wall of beautiful foliage answering well for the purpose of a screen. If space permitted some of the sturdy Penzance Briars could be planted just behind the *wichuraianas* that would eventually rise above the 6 foot limit, and provide you with some delightful blossom and fragrant foliage in early June. We do not advise *Eunymus*, as it is so very slow, and Laurel impoverishes the ground too much.

PRUNING NEGLECTED CLIMBING ROSES (*E. K. Franklin*).—Unless new shoots are well advanced by July, when the old wood is cut away, one cannot expect bloom the following year, as the shoots are not well ripened. We should say this is the reason your plants did not blossom much this season. Now spread out the growths as much as possible, so that air and light may penetrate to the wood. Do no pruning until April next, when the small lateral shoots should be cut back to two or three eyes, then you should obtain plenty of blossom next summer. If the main rods can be trained somewhat fan-shape the blossoming will be considerably aided. As to the mildew trouble we agree with you to a certain extent, yet our experience is that if the sulphide of potassium treatment (which has been frequently alluded to in these columns) be persevered with, the foliage is rendered proof against the attacks of the fungus. Reine Marie Henriette is one of the worst Roses for mildew that one could grow. Try François Crousse or Grüss an Teplitz, and if only a small space is to be covered plant either Ards Rover or Ards Pillar. We believe the new Rose J. B. Clark will be a valuable addition to red Roses for low walls.

ROSES NEAR SEA (*A. B. C.*).—The best climbers for your purpose would be Aimée Vibert and Mme. Alfred Carrière (both white), and Crimson Rambler. As hedge Roses,

Celestial (pink), Waltham Climber No. 1 (crimson), Charles Lawson (rose), hybrid Sweet Briars (various), Dawson Rose (pink), and Blanc Double de Courbet (white). The chief points are to dig the ground deeply, mixing with it about 12 inches below the surface some well-decayed farmyard manure. Plant at once, spreading the roots out carefully, and make the soil firm by treading as the work proceeds. Ask for Roses on their own roots, not grafted on another stock.

C. L.—We gather from your letter that you trained two growths horizontally on the right and two on the left. If this be so we should advise you to train one growth from each side more in a perpendicular fashion. We think it would be advisable to cut back at once each of the four growths to, say, 10 feet or 12 feet. After flowering, cut back the two perpendicular growths right to the base, and the two horizontal growths should have all upright growths cut back to the main branches. This leaves the plant something like the letter T. During the early summer new shoots will break out from the two branches. These new shoots should be retained about a distance of 14 inches apart, all others being rubbed off. If plenty of heat and moisture be given the new shoots grow very rapidly, and soon reach the top of the roof. As soon as the blooms are over cut back the upright rods gradually to the main stems, and encourage new rods again for the next season's supply of blossom.

Rose Beetle.—Yes, plants from the open ground would succeed very well, although pot plants, even if only in 5 inch pots, would be preferred. Such plants as these would cost no more than plants from the open ground. You need not have the pots. After you have planted the Roses in the box, leave them a day or two before watering; then apply with a rose can. One watering will suffice for some time. If you plant pot-grown specimens, prune but very little, merely removing unripe ends. This would apply to all Tea Roses, whether pot-grown or otherwise. If plants from the open are employed, cut back to about half their length. Afford plenty of air until new growths develop; then be careful how you ventilate. It is better to leave a little air on day and night than to risk a check owing to sudden variations of temperature. You will need to shade lightly from May to August. The best form of Rose house is that which can have the roof removed in the summer.

THE GREENHOUSE.

FERNS UNSATISFACTORY (*W. Wooderson*).—The cause of your Ferns getting browned and scorched and being generally unsatisfactory is no doubt due to the fact that they are grown in a lean-to house facing south. This is the hottest position you could give them whereas they ought to have the shadiest place. Grow them in a house facing north if possible, where they will get little or no sun. Then the fronds will grow a healthy green, and be quite different from the brown pieces you sent. Whether the result is partly due to bad watering or not it is impossible to say. During the summer months, when the pots are full of roots, the plants need a lot of water, and if allowed to get dry at the roots the fronds would, of course, suffer. In a house facing south they would be far more likely to get dry than in a cooler one.

J. G. Sheldon.—In all probability the *Spirea* referred to by you is *S. astilboides*, a very fine form, which cannot, however, be forced as hard as *S. japonica*. A distinct variety of this class, which is known as *compacta multiflora*, derives its name from the dense, compact spikes of blossoms. This has increased in popularity a great deal of late years.

Onward.—Guernsey Lilies (*Nerine*) flower, as a rule, in the month of October, before the production of the leaves. Directly the flowers are past the leaves push up and growth goes on during the winter and spring, then the foliage dies off. During the summer they must be thoroughly exposed to the sun, giving them no water whatever till the middle of August. In potting the most suitable compost is good yellow loam, lightened by a little well-decayed leaf-mould and a good sprinkling of rough silver sand. *Nerines* must not be often disturbed, and an abundance of flowers is produced when the bulbs are packed thickly in the pots. Give a light position in the greenhouse when growth is being made, and during the resting season a sunny shelf is a good place.

ORCHIDS.

LYCASTE (*J. H.*).—We are very pleased to hear of your success with Orchids in a mixed house, and with such a temperature as you are able to maintain you can grow many of the most lovely of Orchids. At the coolest end of the house you should place your *Cymbidium traceyanum*, and add the free-growing *Cymbidium lowianum*. Growing with these at the coolest end have some of the *Cypripedium insignis* *Sanderæ* and other good forms of this fine species, also *C. lecanium* in variety. These two will give you flowers during the dull winter months, and both are free

growers. You could add to your *Cattleyas* *Mendellii*, *Mossii*, *labiata autumnalis* and *Harrisoni*, and any of the *Cattleya* hybrids, or *Lælio-Cattleya* hybrids, which are now very numerous, and all are very beautiful, and generally freer growers than the species. Of *Dendrobiums* such species as *D. findlayanum*, *D. crassinode*, and *wardianum* are very good and cheap, but many of the hybrids are more constant growers, among them being *D. Ainsworthii*, *D. splendissimum grandiflorum*, *D. Wiganii*, *D. Cassiope* (nearly always in flower), and *D. wiganianum*. We wish you success, and shall always be very pleased to answer any queries you send us.

J. Milner.—Grow *Coelogyne cristata*, the white variety, and the variety with a lemon-coloured lip.

H. S. S..—"The Book of Orchids," by W. H. White, Burford (John Lane, 2s 6d.), would suit you.

W. H. W..—You should try the well-known *Cypripedium insignis*, which is as easy to grow as any Orchid; in fact, it can be grown quite well in frames during the summer months.

FRUIT GARDEN.

NUT TREES NOT BEARING (*Enquirer*).—The fertility of the Nut tree is greatly improved by annual pruning, and this consists in cutting out the old and barren branches, thereby admitting more air and light amongst the fertile boughs left, also in shortening the longest of the spurs by half. Any long shoots the trees may make during the summer should be pruned back half their length in winter, this will result in several side fruiting shoots being formed the following year. We think that your tree, forming an arch as it does, has been overcrowded with branches, and that with liberal pruning this winter as suggested, and by adding a dressing of manure to their roots, the trees will soon come round to a fruitful condition. We should certainly not cut the trees down until this treatment has been tried. Old Nut trees, as a rule, bear better than young ones. The male catkin of the Nut is freely produced in spring, and these should be allowed to remain on the trees long enough to fertilise the small crimson female flowers which appear later. As soon as these latter are freely expanded a good shake of the Nut bushes on a fine day to liberate and distribute the pollen will help much to secure a good crop.

POT FIG TREES (*Efrinshaw*).—There is no difficulty whatever in procuring pot Fig trees from any of our large fruit nurseries. There is also no difficulty in propagating either now or in the early summer. Sucker growths are not suitable; at all times the Fig has a tendency to produce suckers, and these run to wood too freely. To strike cuttings you will require some well-matured wood—the points of shoots for choice—from 6 inches to 9 inches in length. In preparing the cutting, remove the lower leaves and buds for half the distance. Place the cuttings 2 inches in the soil and make firm. The soil used should be of a light nature. Place the cuttings in a cool house and water sparingly. In April or May, just when growth commences, they should be potted up singly into small pots, using a small quantity of decayed manure in the compost, and giving the plants a temperature of 50° at night and 60° to 65° by day. Keep the leading shoots pinched when 4 inches to 6 inches long. Cuttings may be struck from May to August, using the small shoots a few inches long, taken off with a heel, that is, a small portion of the old wood attached, placing them in a bottom-heat. Few plants are raised more readily than the Fig, and make a fruiting tree in so short a time.

Novice.—Try Lane's Prince Albert, which is an excellent variety.

H. E..—It depends upon the weather. If this keeps mild and open you might plant in December. If the ground is hard and the weather frosty of course you cannot plant.

Landed.—You will find the best Strawberry for forcing to be Royal Sovereign. Consult the fruit garden calendar every week, and you will find instructions how to proceed as the weeks pass by.



HYBRID TEA ROSE THE DANDY.

MISCELLANEOUS.

W. G.—We cannot say where this book can be bought. Try any secondhand bookseller like Wheldon, 91, Queen Street, London, or Westley, Essex Street, Strand, London.

W. B. B.—As regards the making of the frame, so much depends upon the size and whether you require a portable frame. If you use bricks, the wood would be laid on mortar, and it would not be portable. Wood 2 inches thick would be required, and strong cross pieces. If you use bricks, a 9-inch wall would suffice for most of the work. Then you must decide the depth. If for hot manure quite 2 feet in the soil and above the ground level, 4½-inch or single brick would suffice. For sashes 6 feet long an iron cross-bar would be needed. The glass should be cut 12 inches long by 9 inches wide, each sash having six in width. You would doubtless do better by purchasing a ready-made but well-seasoned frame; they are made in suitable lengths. A portable frame is most useful. The frame, if of brick above the ground level, may be as high as you like; 3 feet at back and 2 feet at front is good for small things, or you may have it 4 feet by 2½ feet.

NAMES OF FRUIT.—*Levin*.—Pear Marie Louise. —*S. Shaylor*, *Epping*.—Apple Lady Henniker. —*W. D.*—1, Beurré Harvy; 2, Comte de Lamy; 3, Bergamotte d'Esperin; 4, Gravenstein; 5, Jefferson; 6, Lamb Abbey Pearmain.

NAMES OF PLANTS.—*A. F. Elliott*.—*Taxodium distichum* (deciduous Cypress). —*S. H. B.*—*Chorizema coccineum*. —*J. Y.*—1, *Cypripedium barbatum*; 2, *Cochlidium noetiziana*; 3, *Celoglyne flabellata*; 4, *Adiantum Capillus-veneris* var. *Mariesii*; 5, *A. cuneatum* var.

QUESTION.

REFUSE OF CARBIDE OF CALCIUM USED IN MAKING ACETYLENE GAS.—Would you or any of your correspondents be good enough to tell me whether they have made use of the refuse of the above in their kitchen gardens, and if so, whether it has proved to be a success and harmless? Our kitchen garden is a light and dry soil.—**COUNTRY HOUSE.**

COLOURED PLATE.

PLATE 1287.

HYBRID TEA ROSE THE DANDY.

MESSRS. PAUL AND SON of the Old Nurseries, Cheshunt, are to be commended on one of their latest acquisitions to our garden Roses, and the fact that the colour is a beautiful crimson shade will delight many to whom a series of very pale tints has become somewhat wearisome. The Dandy is, we feel sure, the forerunner of glowing crimson and allied colours, which are so much desired in gardens. It is exceptionally free, has Bardou Job for one of its parents, and the fragrance is strong and deliciously sweet. Our coloured illustration shows its colouring and shape. So free and strong a garden Rose is sure to win popularity. This well-known firm is to be congratulated on a distinct success.

LEGAL POINTS.

STRAYING HORSES (W. K.).—The owner of the offending horses is liable, and, if he declines to pay, sue him in the county court. Perhaps a lawyer's letter would bring him to his senses. It is the duty of persons owning horses, cattle, &c., to prevent them from straying. The owner of land is under no obligation to erect a fence to restrain his neighbour's beasts from committing trespasses and causing injury to an enthusiastic, hard-working, and, we are glad to note, successful gardener.

STRAYING ANIMALS (Drive Gates).—There is no obligation upon the owner of premises to keep the gates of his carriage drive shut during the night, so as to prevent straying animals from trespassing. The owner of the animals is liable for the damage which they do, and also to a fine of 5s. per animal and the expense of removing it to the owner's premises or the common pound. But no fine is incurred where the highway passes over a common or waste land. A highway must be used as a highway, and not as a place in which

to turn out cattle, horses, &c. If, however, animals are lawfully passing along a highway, their owner is not liable for any damage which they may do upon premises adjoining the highway, unless he is guilty of negligence. While they are lawfully upon the highway (i.e., not straying) they are not trespassing, and in the case of property adjoining the highway the occupier must be taken to hold it subject to the risk of such inevitable injury.

NURSERYMAN AND MARKET GARDENER (D. M.). A nurseryman is a tradesman who rears and supplies trees, shrubs, plants, seeds, &c., to his customers, and, in some cases, undertakes the laying out and upkeep of their gardens, while a market gardener is a tradesman who grows vegetables and fruit for sale in the public markets. A man may be both a nurseryman and a market gardener. The right of a market gardener to compete at a flower show depends upon the conditions of entry. Some classes are limited to private growers, while others are open to all comers, including the trade.

WATER SUPPLY (M.).—There is no reason why you should not dig a well on the extremity of your own land, notwithstanding that the effect will be to drain your neighbour's well, and his conduct entitles him to no consideration at your hands. As you have taken water from your neighbour's well for fifty years as a matter of right you are entitled to continue to do so, and you are also entitled to enter his land for the purpose of repairing the pipe which carries the water from his well to your premises. You must, however, enter at a reasonable hour, and you should give your neighbour notice of your intention. If he threatens to prevent you you can take legal proceedings, but probably a letter from a local lawyer would make him more reasonable.

IMPRISONED SON (J. S. B.).—We are very sorry for your trouble, but we do not see how you can hold yourself responsible for your son's conduct. Let us hope that he will amend his ways. By hard labour and industry, with good conduct, a male prisoner may render himself eligible to be released on licence when one-fourth of his sentence has yet to run, and a female prisoner when one-third of her sentence has yet to run. The case of a prisoner under sentence of penal servitude for life is specially considered at the end of twenty years. A prisoner is allowed to communicate with his relatives and respectable friends by letter, and to be visited by them after four months of the term of his sentence have expired, and this privilege may be gradually increased according to his conduct and industry until the interval is reduced to one month. Not more than three persons are admitted to visit the prisoner at one time. A prisoner is allowed to write a special letter and to receive a reply in the case of the death of a near relative, or for the purpose of giving instructions as to his business or family affairs of an urgent nature, or of making arrangements for obtaining employment or assistance from friends on release. The authorities may require any visitor to be searched. All letters are read by the officials, and if the contents are objectionable the letters are not forwarded.

SOCIETIES.

EXETER CHRYSANTHEMUM SHOW.

THE show of the Devon and Exeter Horticultural Society was held in the Victoria Hall, Exeter, on the 9th inst. Though in the larger classes competition was not quite so keen as in former years, the hall was well filled, and many competed in some of the smaller classes. The prize-winning stands of cut blooms in the open, amateur, and cottager classes were all of excellent quality, and the first prize group of Chrysanthemums, 26 inches in length, was a very fine exhibit. Fruit was well shown, two long tables running down the entire length of the hall being filled with it.

PRIZE LIST.

Group of Chrysanthemums: First prize, certificate of the National Chrysanthemum Society, and silver medal, Mr. W. Brock; second, Mr. T. Knapman.

Smaller group of Chrysanthemums: First, Mr. C. M. Collingwood.

Group of miscellaneous stove and greenhouse plants: First, Mr. W. Brock, with a good and varied collection.

Specimen Chrysanthemum: First, Mrs. Knight-Bruce; second, Mr. C. M. Collingwood.

CUT BLOOMS.

Thirty-six Japanese blooms in twelve varieties in vases: First prize silver cup, Sir Duckworth King, with splendid flowers. This exhibit was awarded the National Chrysanthemum Society's certificate. Twenty-four Japanese: First, Mr. R. H. Harrison; second, Sir D. King. Only one point divided these stands. Eighteen Japanese in vases: First, Mr. E. H. Hill; second, Mr. W. Brock. A. F. S. Vallis in the first prize stand was awarded the National Chrysanthemum Society's silver medal as the best Japanese bloom in the show.

Twelve Japanese: First, Mr. W. Luxmore. Twelve Japanese incurved: First, Mrs. J. R. Gulson. Six Japanese, white: First, Sir D. King, with Mrs. Carnot. Six Japanese, yellow: First, Mrs. J. R. Gulson, with General Hutton. Six Japanese, any other colour: First, Mrs. J. R. Gulson, with Mrs. P. Radaelli. Six incurved: First, Mr. C. M. Collingwood. Six Pompons: First, Miss Kingdon; other entries disqualified. Six vases, singles: First, Captain Radcliffe.

The amateurs' classes were well filled, but were chiefly remarkable for a stand of six very fine incurved, shown by Mr. C. M. Collingwood. This stand took the first prize and silver medal for the best amateur exhibit, while one of the flowers, *Souvenir de W. Clibran*, was awarded the bronze medal of the National Chrysanthemum Society as the best incurved bloom in the show.

In the fruit classes Mr. B. H. Hill won the first prizes for the large collections of Apples and Pears, as well as other prizes, and amongst the other winners were Dr. Samways, Lord Poltimore, Sir Duckworth King, Sir J. F. Davie, and Mrs. Wipfel.

Among the nurserymen's exhibits was a fine stand contributed by Messrs. K. Veitch and Son, Exeter, containing winter-flowering plants in variety.

Messrs. Jarman and Co., Chard, had fifty dishes of Apples, including the new dessert Apple Coronation. They also showed specimens of trained Apple trees. Mr. J. Garland, Broadclyst, exhibited a new seedling Apple Star of Devon.

EDINBURGH.

QUITE one of the best autumn shows was that held by the Scottish Horticultural Association in the Waverley Market on the 16th, 17th, and 18th inst. The competition was keen, and the quality of the blooms and specimen plants quite up to the average; indeed, the latter were the best yet seen here. Decorative varieties—free-flowering and singles—were so numerous and of such high quality as to make a show in themselves. In awarding the prizes in the leading classes for cut blooms the judges attached to prepared cards the names of the blooms and the number of points awarded to each, a system quite new in Chrysanthemum judging, but one to be commended from an educational point. Here all cut blooms are staged in vases, and produce a fine effect in the large hall.

CUT BLOOMS.

The leading class is for fifteen varieties Japanese, three blooms of each, for which a piece of plate value £20 is given and £10 in cash. Six competed, making a fine display. Mr. D. Nicoll, gardener to J. W. Ball, Esq., Rosale, Forganenny, secured the leading prize by the narrow margin of one point, with a total of 106 points. The blooms were of high quality and well staged. Mrs. F. W. Vallis, Mrs. P. Radaelli, Miss M. Ware, Mrs. Barkley, Miss Olive Miller, and F. S. Vallis were the best. Mr. T. Lunt, gardener to Captain Stirling, Keir, Dunblane, second with 105 points. Mr. Belsant, gardener to Mrs. Armstrong, Castle Huntly, third.

For eight Japanese, distinct, three of each, the Scottish Challenge Cup was given for Scotch-grown blooms. Here fourteen competed, making an exceedingly fine display. Mr. G. Stewart, gardener to Sir J. Sievwright, Tulliallan Castle, Kincardine-on-Forth, won easily with a total of 62 points. Especially fine were Miss Elsie Fulton, Mrs. P. Radaelli, Florence Penford, and F. S. Vallis. Mr. J. H. Cumming, gardener to Lady Stewart, Grantully Castle, second with 53½ points.

For six varieties, three of each, Mr. Thomas Baird, gardener to James Younger, Esq., Armsbrae, Cambus, had the best set of seven competitors. Mr. McKellar, St. Marnocks, Portmarnock, County Dublin, second.

In the class for six blooms, any one variety, Mr. Lunt, with F. S. Vallis very fine, was first easily.

An interesting class was that for partially disbudded sprays in vases, four varieties, three sprays of each, with at least three blooms on a spray. Mr. A. E. Todd, Stoneybank, Musselburgh, was first with such varieties as *La Triomphante*, its yellow sport, and *M. W. Holmes*.

In the class for three single-flowered varieties with any foliage there were eight contestants. Mr. A. Knight, gardener to Sir W. Lawson, Brayton Hall, Cumberland, won with handsomely-displayed masses of *Purity*, *Edith Pagram*, and *Miss Annie Holden*.

Decorative varieties, three vases distinct, not more than twelve sprays in each vase, with any kind of foliage, brought thirteen entries. Mr. J. Hay, with *Crimson Source d'Or*, *La Triomphante*, and *Yellow Triomphante* won first place, a really fine exhibit of useful flowers; Mr. W. Armstrong, gardener to Dr. Scott, Musselburgh, second.

Orchids arranged for effect in a basket made a fine feature. Mr. A. E. Todd easily won the premier position.

Amateurs competed numerously and well in the various classes set apart for them.

PLANTS.

A first prize of £6 was offered for six large-flowered varieties. Mr. J. Pulman, gardener to D. R. W. Hine, Esq., Holywood, Colinton, was first, with really fine plants, freely flowered and not too stiffly trained.

For four Japanese, distinct, Mr. Pulman easily secured the leading award, his plant of Swallow Giant being especially fine.

For two, any section, Mr. Michie, gardener to Lady Steel, won with Nelly Pocket and Mrs. Greenfield.

Japanese in 6-inch pots were splendidly shown; the plants were 3 feet high, and carried ten to fourteen good blooms. Mr. G. Chaplin, gardener to A. Nelson, Esq., was first. Pompons in 6-inch pots also were extremely good, really fine decorative examples of Rosinante and Nelly Rainford from Mr. Chaplin.

Groups of Chrysanthemums were poor.

FRUIT.

Grapes were few in number but good in quality. Mr. Leslie, Pitculen, was the most successful.

The best Apples were from Mr. Jordan, Impney Hall, Droitwich.

Vegetable collections were scarce. Mr. Beckett, Aldenham House, Ebstree, easily won for both collections.

Mr. H. J. Jones, Ryecroft Nurseries, Hither Green, Lewisham, won the society's gold medal for Chrysanthemums, beautifully arranged in Bamboo stands, they include many new varieties.

ROYAL BOTANIC SOCIETY.

AT an exhibition of this society held in their gardens, Regent's Park, on the 15th inst., the following groups were shown:

Messrs. T. S. Ware, Limited, exhibited a large collection of alpine and winter-flowering Carnations. Silver medal.

A very fine plant of *Crinum augustum* in flower was shown from the society's gardens.

A silver-gilt medal was awarded to Mrs. Adamson (gardener, Mr. Kell) for a splendid group of Chrysanthemums.

A gold medal was given to F. A. Bevan, Esq. (gardener, Mr. Parr), Trent Park, New Barnet, for some splendidly-flowered plants of *Begonia Gluire de Lorraine* and its white variety.

A large silver-gilt medal was awarded to H.R.H. the Princess Royal and the Duke of Fife (gardener, Mr. Mountford) for an exceedingly attractive group of Chrysanthemums, Begonias, Orchids, and other plants.

EASTBOURNE HORTICULTURAL SHOW.

A CAPITAL show was held on the 2nd and 3rd inst., some really first-class blooms being staged in the classes for Japanese on boards as well as in vases. The best prize in the schedule, that for twenty-four Japanese in not less than eighteen varieties, was carried off by Mr. W. Welfare, gardener to J. Pealey, Esq., Trafalgar House, Tottenham, whose exhibit was exceptionally good; second, Mr. A. Simmons, gardener to Sir F. Osborne, Bart., The Grange, Framfield. The first and second prizes in the class for twelve Japanese blooms, distinct, were won by Mr. A. Simmons and Mr. W. Hopkins, gardener to J. MacGregor, Esq., Hailsham. Mr. G. Whitehouse, gardener to C. Diplock, Esq., Polegate, won first prize for six Japanese white or yellow, for six Japanese other than white, and for six Japanese distinct.

A number of classes are open to members only, and here Mr. W. Hopkins was first for eighteen Japanese in twelve varieties on boards.

Fruit was especially good in several instances, notably Apples and Pears. Mr. F. W. Thomas winning for six dishes culinary Apples. Mr. F. W. Thomas was also first for six dishes of dessert Apples. Mr. G. Grigg, gardener to the Earl of Ashburnham, was successful in several classes.

Messrs. W. Wells and Co., Mertham, staged a few novelties in Japanese. Messrs. Durrant Young, Terminus Road, Eastbourne, and Mr. G. T. Scott, nurseryman, Eastbourne, exhibited large groups of Palms and flowering plants.

SCOTTISH HORTICULTURAL SOCIETIES.

DUNDEE HORTICULTURAL SOCIETY.—At a recent meeting of the Dundee Parks and Markets Committee, a request by the Dundee Horticultural Society for a renewal of the grant to the society for their annual show of a portion of the Magdalen Green was laid before the committee. It was granted, but only on condition that the space for side shows and other entertainments should not be farmed out, but should be retained in the hands of the society. It is understood that this will adversely affect the income of the show, a matter to be regretted, as there was a loss of upwards of £80 on this year's show. One of the members of the committee objected to any part of the ground being used for any revenue-earning purpose, but his views did not obtain the necessary support, and he entered a protest.

EAST OF FIFE.—The show of Chrysanthemums, fruit, and vegetables of the East of Fife Chrysanthemum Society was held in the Town Hall, Leven, on the 9th inst. The opening ceremony was performed by Captain Gilmour, Woodburne, Ceres, in the presence of a large company. The show was an excellent one in all departments. The high quality of the cut blooms was the subject of general remark, but the pot plants were also very good, and that with which Mr. Short, Lahill, won the prize for the best plant in the show did much credit to the winner's cultural skill. The prize for the best vase of cut Chrysanthemums was awarded to Mr. Black, Linwood Hall, for a capital exhibit.

ALITH FRUIT GROWERS' ASSOCIATION.—The result of the season's work of this association has proved very satisf-

factory, and the returns just received by the growers are much better than had been expected, on account of the low prices which prevailed at one period. The low prices then offered were, however, not accepted by the management, and the amount now paid to the growers represents an average, after deduction of expenses, of £21 6s. 10½d. per ton. Eight new members have joined the association this season, and last year's outturn was doubled, with a prospect that this will be still further added to in 1906. Mr. A. M. Ferguson, the secretary, is entitled to great credit for such gratifying results.

COLCHESTER AUTUMN SHOW.

In few provincial towns is fruit shown so largely and so well as at Colchester. The fruit and vegetable classes are most extensive, filling quite half of the exhibition building, the Corn Exchange. There was also a splendid display of Chrysanthemums. There are nearly fifty classes for fruit and thirty classes for vegetables, so that it will be seen that fruit and vegetables at Colchester are an important feature. There was no lack of exhibitors, especially in the single dish classes, in which much interest was taken, and most of the fruit staged would compare favourably with that exhibited early in October at the great hardy fruit show held under the auspices of the Royal Horticultural Society. To test flavour the fruits are cut, and much attention is paid to correct nomenclature, the judges having to disqualify any not named correctly, no matter how good the exhibit may be. The special prizes for the best dish of Apples, also Pears, both dessert and kitchen sorts, cause much interest. There is a good rule that all dessert Apples of large kinds, such as Blenheim or Gasconne's Scarlet must not exceed 3 inches in circumference. Few local shows come up to Colchester in some classes of Apples in the dessert section. I have never seen such grand Allington Pippins. The premier award for the best dessert Apple was given to a dish of Allington Pippins, and a magnificent dish it was. Mr. O. G. Open staged a splendid half-dozen dishes in the dessert class, and note must be made of the spirited competition in these classes. There was a grand lot of Peasgood's Nonsuch. Here are distinct classes for Ribston Pippin, Cox's Orange, Allington Pippin, Gasconne's Scarlet, and the Green and Bronze Spice Apple, a local and a splendid late dessert fruit. This is well known as Darcy Spice or Biddow Pippin, and is well grown in Essex and the adjoining Eastern Counties. Though there are two classes, I have never been able to distinguish any difference, as when I lived in Suffolk we had both green and disk or bronzed fruit on the same tree.

This year the competition in the Pear classes was less keen than usual, but there were some good fruits staged, and in no part of the show is there greater improvement to be seen than in the Pear classes. There are certainly giant cooking fruits, but these are in their right place, and there is a class for weight. My note would not be complete without referring to the vegetable classes and the splendid exhibits staged. The single dish classes were very good and well contested. Both amateurs and cottagers at this show exhibit well, and there is an absence of grossness in these classes, which is a welcome feature at an autumn show, as at times size is too much in evidence. Space does not permit me to go into details, but I do heartily congratulate the committee on their good management and fine show.

G. W.

ROYAL HORTICULTURAL SOCIETY.

THERE was rather a small exhibition at the meeting of the Royal Horticultural Society on Tuesday last, the 21st inst., although several new and interesting Orchids, fruits, and vegetables were shown.

FRUIT AND VEGETABLE COMMITTEE.

Present: Messrs. George Bunyard (chairman), S. Mortimer, Edwin Beckett, A. Dean, William Pope, J. Cheal, Henry Parr, Horace J. Wright, J. Lyne, J. Jaques, G. Wythes, Owen Thomas, and H. Somers Rivers.

Mr. G. Luck, gardener to B. H. Hill, Esq., Newcombs, Crediton, exhibited a collection of more than fifty dishes of Apples and Pears. Some of the former were finely coloured, while all were excellent fruits. Several varieties of Pears, too, were well represented. Silver-gilt Knightian medal.

Some Mushrooms, grown from XL All Spaw, a favourite market sort, were shown.

Mr. J. H. Ridgwell, Histon, Cambs., exhibited two new dwarf Brussels Sprouts, New Dwarf and Hardest of All, which the committee wished to have sent to Wisley for trial.

Several new Apples were shown, but only one obtained an award of merit.

NEW FRUITS AND VEGETABLES.

Apple Star of Devon.—This is an Apple of medium size, conical, heavily striped with crimson upon a pale red ground colour on the sunny side; on the shaded side the colour is greenish yellow, more or less striped with red. The stalk is short, set in a deep cavity; the eye is set in a broad shallow depression. From Mr. J. Gariand, Broadclyst, Exeter. Award of merit.

Drumhead Kale.—An award of merit was given to this new variety; of its origin no particulars were given. It has the appearance of C. being a useful vegetable. Messrs. J. Carter and Co., High Holborn, W.C.

After trial at Wisley awards were granted to the following Potatoes: A first-class certificate to Peckover (W. Boyce, Welney, Wisbech).

Each of the following received an award of merit: *The Gardener* (W. H. Sinclair, 156, Union Street, Aberdeen), *British Hero* (G. Carter, School Lane, Cottenham), *Denbigh Giant* (R. H. Winnard, Anderton Hall, Anderton), *Hurst's Favourite* (Hurst and Son, Houndeditch, Southern Star

(J. Velth and Son, Limited, Chelsea, F. C. Crampton, Gate House, Sessinghurst, and J. Walker, High Street, Thame), *Cigarette* (Barr and Sons, King Street, Covent Garden). *The Walcheren Coughflower*, from Barr and Sons, King Street, Covent Garden, also received an award of merit after trial.

ORCHID COMMITTEE.

Present: Messrs. Harry J. Velth (chairman), James O'Brien, R. Brooman White, de B. Crawshaw, Francis Wellesley, F. W. Ashton, J. Charlesworth, W. Thompson, A. A. McBean, J. W. Odell, W. H. Young, W. Buxall, H. Little, G. F. Moore, W. H. White, R. G. Thwaites, W. A. Bilney, H. A. Tracey, and J. Douglas.

Messrs. James Velth and Sons, Limited, Chelsea, showed a group of *Cypripediums* that included a well-coloured *C. fairleanum*, *C. arthurianum pulchellum*, and several plants of the beautiful *C. insignis Sanderae*. *C. l. Harfield Hall variety*, *C. x Acteum*, *C. x Thalia*, and *C. viridarium* were also in this group. Silver Flora medal.

Messrs. Charlesworth and Co., Heaton, Bradford, showed several beautiful Orchids in their group, e.g., *Cattleya Vulcan superba*, *C. liliata alba variety Louise* (with white sepals and petals and blue-purple lip), *C. chamberlainiana*, *Brasso-Cattleya purpurato-digbyana var. King Haakon VII.*, *Trichopilia suavis* (finely flowered), *Sophro-Cattleya eximia*, *Cypripedium insignis citrinum*, and others. Silver Flora medal.

Mr. Ch. Vuylsteke, Loochristi, Belgium, showed some beautiful *Odontoglossums*, richly-coloured varieties of *O. ardentissimum*, *wilckeanum*, *harryo-crispum*, and others. Silver Flora medal.

Messrs. Hugh Low and Co., Bush Hill Park, Elfield, exhibited a group of *Cypripediums* that included numerous forms of *C. insignis* and various hybrids. *C. Mme. Jules Hye*, *C. l. Sanderae*, *Chantini Linden*, *collabium*, *Harfield Hall*, and *C. Charles Canham* were among the best. Silver Banksian medal.

Messrs. Stanley and Co., Southgate, N., showed a pretty group of Orchids, in which was a fine plant of *Cattleya bicolor*. *Laelio-Cattleya schilleriana*, *Cattleya Harrisoniana*, *Laelia elegans Turneri*, *Sophronitis grandiflora*, and several good *Cypripediums* were well shown. Silver Banksian medal.

Messrs. Sander and Sons, St. Albans, exhibited a few choice Orchids, including *Cypripedium The Earl* (self-germ majus x *onanthum superbum*), *C. Leeander* var. *decora*, *Laelio-Cattleya the Hon. Mrs. Astor* (*C. gaskelliana* x *L. xanthina*), *L.-C. lucasiana* (*C. l. flammea* x *L. tenebrosa*), and *Cypripedium The Baron* (See "New Orchids").

Several other beautiful Orchids were shown, notably *Laelio-Cattleya heatonensis*, from Sir F. Wigan, Bart., East Sheen (Orchid grower, Mr. Young).

NEW ORCHIDS.

A first-class certificate was given to the following:

Cypripedium The Baron.—A large and handsome flower, the result of a cross between *C. Hitchinsii* and *C. nitens* (Sander's variety). The dorsal sepal is large and blotched, and spotted with purple upon a white ground. At the base the ground colour is rich green, and the markings are more crimson than purple. Petals and pouch are brownish green. From Messrs. Sander and Sons, St. Albans.

Each of the following received an award of merit: *Cypripedium Acteum chardwarensae*.—The dorsal sepal is light green at the base, with a broad, semi-circular band of white at the upper half; the green is lightly lined with crimson-brown. The petals are light green, and the pouch is green and brown. Shown by G. F. Moore, Esq., Chardwar, Gloucestershire (gardener, Mr. Page).

Cattleya Mrs. Pitt var. magnifica.—A cut flower of this beautiful variety was shown by Major G. L. Holford, C.I.E., Westonbirt (Orchid grower, Mr. H. G. Alexander). The broad sepals and the irregular petals are of a uniform rose, a clear, pleasing shade of colour. The lip is rich orange-coloured, fading to a lighter shade towards the margins. The throat is marked with crimson-brown.

Cypripedium Thalia giganteum.—A very attractive flower. The dorsal sepal is heavily spotted with purple-brown upon a pale green ground and a broad bluish coloured margin. The lip is brown, and the petals are veined with brown upon a pale green ground. Shown by F. Wellesley, Esq., Westfield, Woking.

Odontoglossum Phoebe.—*O. cirrhaum* and *O. crispum* were the parents of this hybrid, which has slender pointed sepals and waved petals, white spotted with chocolate-red. The flower is characteristically intermediate. Shown by Messrs. Charlesworth and Co., Heaton, Bradford.

Odontoglossum Hallio crispum Theodora.—A large-flowered garden hybrid between *Hallii* and *crispum* parents. The ground colour of the sepals is primrose tinged with pale rose; in the petals the rose tinge is absent. The sepals are blotched, and the petals are spotted with red-brown. From Mr. Ch. Vuylsteke, Loochristi, Ghent.

Dia pulchra Tring Park variety.—A very beautiful pale pink flower, larger and altogether finer than the type. The lip is marked with very thin lines of purple. This was shown by Lord Rothschild, Tring Park (gardener, Mr. Dye), and received an award of merit. A botanical certificate was given to the type *Dia pulchra*, also shown by Lord Rothschild.

Mormodes Badium.—The petals and sepals of this curious flower are a deep brick-red colour, while the lip is deep purple-red. Shown by Lord Rothschild.

[The report of the Floral Committee is held over until next week.]

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THE GARDEN.

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A POTATO EXHIBITION.

THE National Potato Society held its second annual exhibition last week in the hall of the Royal Horticultural Society. It was more largely patronised by Potato growers than the first exhibition. While last year the entries numbered some 800, on this occasion more than 1,200 competitors entered. The varieties that became so famous during the Potato boom were to be seen in almost all the non-competitive stands, but we were glad to see that many of the older varieties were prominent also. Three of the most interesting classes in the schedule were those for "total yield of any variety from twelve consecutive roots," "eight varieties of disease-resisting Potatoes, one dish of each, to include not less than four of the chosen sorts in the election of 1904," and "six varieties of Potatoes for flavour, one dish of each, to include not less than four of the principal sorts in the 1904 election." The first prize for the best yield of Potatoes from twelve consecutive roots (the Potatoes not to be grown more than 3 feet by 18 inches apart) was won by the variety *Scotch Triumph*; 147lb. of this variety were gathered from the twelve roots. The best disease-resisting varieties according to the result of the 1904 election are *Evergood*, *Discovery*, *Royal Kidney*, *Northern Star*, *Sir John Llewelyn*, *King Edward VII.*, *Eldorado*, and *Factor*. By the same authority the following Potatoes are considered to be the best flavoured: *Langworthy*, *Sir John Llewelyn*, *Factor*, *Royal Kidney*, *Evergood*, *Duchess of Cornwall*, and *Snowdrop*. Thus four of the best disease-resisting varieties are also considered to be the best flavoured, namely, *Evergood*, *Royal Kidney*, *Sir John Llewelyn*, and *Factor*.

One of the most interesting exhibits at the show was the collection of *Solanum* species from Messrs. Sutton and Sons. One of these, *Solanum Maglia*, a small purple tuber from the islands of the *Chonos Archipelago*, is found growing wild in swampy land, and will probably prove to be most valuable as a parent in the production of disease-proof Potatoes. Messrs. Sutton have already obtained a hybrid between *S. Maglia* and the Potato of commerce. It has white, pebble-shaped tubers of medium size, and has proved to possess valuable disease-resisting

properties. Some of the smaller kinds of Potatoes, as, for instance, the *Fir Apple*, *African Potato*, and *Black Congo Potato* are of excellent flavour and most useful in salads.

The question of flavour in Potatoes seems a most difficult one to decide. Those who prefer a "floury" sort describe the old yellow flesh varieties as "soapy" and "insipid," while those who like only the latter go so far as to say the "floury" varieties have no flavour at all, and doubtless would say the same of those considered by the National Potato Society as the best flavoured. There is no doubt that an increase in bulk is accompanied by a loss of flavour, and for this reason we are sorry to see that almost all the newer varieties of Potatoes are very large; some, indeed, are huge and useless for ordinary table purposes on account of their size alone, to say nothing of their lack of flavour.

BORDER CARNATIONS.

It is quite time we should be looking forward if we wish to have our flower-beds and borders bright and interesting next season. Many things, such as *Daffodils*, should already be in the ground. I strongly advise planting *Carnations* in the autumn where the soil is suitable. If the ground is very wet and cold it is better to defer planting until the spring, but as a general rule far better results follow autumn planting unless the soil is quite unfit. October and November are the best months for this work. Do not plant when the soil is wet and sticky, but wait until it is in a nice friable state and will break up when handled.

In preparing the ground, if it is very heavy add plenty of old mortar rubbish, than which there is nothing better; it lightens the soil, and the plants revel in it. If mortar rubbish cannot be procured use road scrapings, leaf-mould, or sand; the leaf-mould should be thoroughly decayed, and the best is that produced from Oak or Beech leaves which have been stacked for several years and turned each winter to assist the process of decay. Spread this over the surface of the ground, and let it remain for a few days for the birds to pick out any wireworms or other grubs before it is dug in. I do not recommend fresh manure to be used at all for *Carnations*, nor much manure, even when well decayed, on heavy ground, unless the soil is very poor, then a dressing of old hot-bed manure may be used, but it should be kept well below the surface. If the soil is very light it should be well manured, burying the manure beneath the surface so that it does not come in contact with the stems and roots of the plants until they have started into growth in the

spring, for there is nothing more calculated to encourage disease, especially gout, than a lot of manure near the surface of the soil, that dread disease which is the cause of the sudden collapse of apparently healthy growth when it is in the height of its vigour and just showing signs of flowering. This disease seems to be constitutional, and attacks the strong-growing varieties with thick rather sappy stems more than those with wiry thin stems; the shoots suddenly flag and wither without any apparent reason, and if they are pulled they will be found to come away quite easily from the rest of the plant, and the centre of the shoot will be found to be soft and brown.

Avoid, therefore, the use of all very strong or fresh manures, either natural or artificial, in growing *Carnations*, and use only well-decayed manure, and see that it is kept well beneath the surface. I like to plant my *Carnations* on land that has been cleared of a crop of Potatoes or Onions, and merely dug over and well worked directly these crops have been cleared off, so that it may settle in time for the planting season. If the ground is at all heavy do not tread on it while planting, but lay boards across the beds to tread on, thus keeping the soil as loose and open round the plants as possible, so that the heavy rains in winter may drain away quickly. In the spring, when the March winds begin to dry up the surface of the ground, you can walk about among your plants with advantage, pressing the soil well round the roots.

The best soil for *Carnations* is one which is not too light and hot in summer, and again not too heavy and wet in winter, and if one could have exactly what one wished for I would choose a medium, sweet loam, with plenty of drainage. The top spit of an old pasture, stacked, and allowed to remain for some months, and then turned and well broken up, will make a very good foundation for a *Carnation* bed, if one has to be prepared specially; but in using fresh loam of this description there is great danger of introducing wireworms, which generally abound in pasture land. Although I have noticed that these pests confine their attentions chiefly to weak and unhealthy plants, they are not to be trusted, but should be carefully searched for and destroyed while you are turning the soil.

When choosing a place for your bed of *Carnations* bear in mind that they must have plenty of light and air, although it is not wise to plant them in the windiest spot in your garden or the very hottest, but plant them if you can in a place where they will be shaded during part of the day from the sun, and you will find the blooms will last much longer. I like a border sloping gently to the east or south-east, with a wall at the back. Plant

Carnations in beds by themselves. Never mix them with other flowers, except perhaps Roses. A bed of Roses with white Carnations between makes a very beautiful effect. Such a variety as the George Maquay, raised some years ago by Mr. William Robinson, is excellent planted this way and left for two or three years, and they do not seem to do the Roses any harm; in fact, I think they rather do good in shading the ground and keeping it cool during very hot weather. With this exception it is better to keep Carnations in a bed to themselves, they can then be attended to so much more easily when they are all together, and Carnations do require a good deal of attention during the growing and flowering season; but it is not my purpose to refer to this just at present. I wish to confine these notes entirely to the work that should be done within the next few weeks.

When the layers are well rooted, the sooner they are planted the better. Arrange the beds so that each individual plant can be easily reached without having to tread among the others; this is very important when the time for tying up and layering comes round. The distance between the plants will vary a good deal, according to the habit of growth of each variety. Some very strong growing ones will require as much as 18 inches, when for others of compact habit half that distance will suffice. If you do not know the habit of the plants a good average distance to allow is 12 inches between the plants in the rows, and the same distance between the rows, planting them thus:

* * * * *

If you have plenty of room do not plant more than three rows in each bed; you will find with more than this there will be some difficulty in layering the growth in the middle of the bed.

Be careful to plant firmly. A handful of prepared soil round the roots will give them a good start, and if any of the plants are at all likely, owing to their long growth, to be blown about, tie them to short sticks for support. A dressing of soot and wood ashes dusted over the plants after a shower of rain will help to keep off slugs and other pests. When, once carefully planted they will require little attention during the winter.

W. A. WATTS.

PRIZES FOR GARDENERS.

AWARDS IN THE FLOWER BORDER COMPETITION.

THE plans to which the prizes are awarded are in advance of the others, both in the matters of good colouring and freedom of massing, the two most essential qualities in the effective arrangement of flower borders. First prize: Mrs. R. Chamberlain, Lacie Court, Abingdon. Second prize: Mr. D. Robinson, Eastergate, near Chichester. Besides the winning plans, those deserving of special commendation were sent by the following:

Mr. J. W. Skinner.—A good comprehensive plan from spring to autumn, colour good, fairly large groups well intergrouped.

Mr. James Moore.—A plan much of the same character, colour good, well intergrouped, but the actual groups a little stiff in form.

Mr. J. Coutts.—A very good plan, but it would have been much better had all the plants, and

especially those at the front edge, been in larger groups of more free outline.

Rev. Dr. Kingsmill Moore.—Colour arrangement very good and simple, but the plan would have been better if the sections of colour had been allowed to graduate into one another by running the groups of one section into the next.

Mr. Wm. Duggan.—A plan much like the last; good colour and fairly good grouping, but the colour too much in blocks.

Miss N. Tiddeman.—Good colour, but the shape of groups hardly free enough, and the choice of plants might also have been better.

Mrs. G. Buxton.—Good colour, and a thoughtful selection of only too many good plants. Grouping not shown.

Mr. J. W. Funge.—Good colour, but too many kinds of plants crowded in.

Miss E. K. Franklin.—Good colour, but the quantity of bulbs throughout the border would make its working almost impossible.

Mr. E. C. Learight.—Also too many bulbous plants, though a well-coloured plan.

Mr. Wm. Ford.—Good colour and fairly large groups.

Mrs. Huckle.—Good large groups, but the colouring not so good as in many others.

The general impression received after the careful consideration of the large number of good plans is that gardeners should be advised to simplify the grouping of their plants in flower borders by reducing the numbers of kinds of plants and by increasing the size of the groups themselves. They are by no means bound to show all the available plants in any one border. The object is a fine, telling garden picture, and this can best be had by the larger grouping of the very best things only. The groups themselves are also better if rather long in shape than block-shaped, the longer shape being helpful in securing a gentler and more harmonious gradation, both of colouring and habit of plant, in the association of those plant groups that pass one into another.

G. JEKYLL.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

December 5.—Royal Horticultural Society, meeting of committees, 12 noon.

December 7.—National Rose Society, annual meeting, 3.30; annual dinner, 5.30.

December 12.—Horticultural Club, 6 p.m., Hotel Windsor, Mr. Robert Read, M.B.O.U., on "Bird Life in Field and Garden" (lantern slides).

The National Rose Society.—The annual meeting and dinner will be held on Thursday next, December 7.

Chrysanthemums at Arundel House, Dumfries.—Although not cultivated for show, the Chrysanthemums grown at Arundel House, Dumfries, the residence of Mr. J. Primrose, are such as would give a good account of themselves in strong competition as a whole. The collection is a good one, as new varieties are added from year to year, and the inferior ones are discarded. This season considerable difficulty was experienced owing to the prolonged illness of Mr. J. Allan, Mr. Primrose's head gardener, who pays much personal attention to these flowers. The bulk of the collection is staged in the centre of a large conservatory. On a recent visit one observed among them such varieties as F. S. Vallis and Mrs. F. W. Vallis, both up to the high standard these show under good cultivation; Viviani Morel and its bronze sport Charles Davis, both in excellent character; Australie, excellent from the first crown bud; Edwin Molyneux, Florence Molyneux, Godfrey's Masterpiece, Calvat's 1899, Lady Conyers, Mme. Gustave Henry, fine blooms of this grand flower; the indispensable Mrs. Barkley, Mme. P. Radaelli, Matthew Smith, Miss Elsie Fulton or Princess Alice de Monaco,

one of a set which do exceedingly well at Arundel House; Mrs. George Mileham, N.C.S. Jubilee, Mrs. T. W. Pockett and Nellie Pockett, Soleil d'Octobre, Charles Davis, Violet Lady Beaumont, W. R. Church, and several new varieties which are expected to improve next year. A number of the newer early sorts are also cultivated in pots, these comprising several scarcely ever seen in ordinary collections. The collection is an excellent one for its size.—A.

Presentations to Scottish gardeners.—In view of their leaving St. Mary's Isle, Kirkcudbright, to take up their new appointments as head gardeners, a number of their friends recently waited upon Mr. John Blacklock, who has been appointed gardener to Colonel Home Drummond, Blair Drummond, and Mr. Charles M'Donald, who has been appointed gardener to Mrs. Wedderburn Ogilvie, Rannoglyzion, and presented them with gold-mounted umbrellas in token of their esteem and goodwill. The presentations were made by Mr. Joyce, St. Mary's Isle, and Mr. J. Kelly, who, on behalf of town friends in Kirkcudbright, expressed their pleasure at hearing of their preferments. Messrs. Blacklock and M'Donald made brief replies.

An Ivy-clad wall.—The Ivy is always beautiful, but when subjected to the shears cannot give a true idea of its worth. It is only when it can branch out and come into the fruiting stage that one can fully realise what a fine evergreen it is. Sometimes one comes across a wall where, for some reason, clipping has been discontinued, and the growths have been allowed to extend both laterally and at the top. By far the finest Ivy-clad wall of this description I have ever seen is in Mr. F. Holme Sumner's garden at New Haw, Surrey. This wall evidently once formed the boundary to the flower garden, and is, if I remember rightly, about 60 feet long, and when I saw it in early spring was one mass of purple berries. For many years I have seen nothing finer than this Ivy-covered wall. I once saw, in a Surrey village, a cottage, the roof of which was completely covered with Ivy, which must have been quite 4 feet through. It was impossible to do anything to the roof without cutting away the Ivy, and as this had evidently never been touched, it must have formed a rainproof covering.—J. CORNHILL.

Chrysanthemums at Dumfries.

—Among the few Scottish nursery firms which make a feature of Chrysanthemums grown for large blooms is that of Messrs. James Service and Sons, Maxwelltown, Dumfries, one of the leading businesses of its kind in the south of Scotland. This season the plants, of which a very large number are cultivated, have done well, and the blooms have been finer than the firm have had in previous years. The plants have been excellent, and the greater number of the blooms have been of a high quality, as was evidenced by their position at the recent Chrysanthemum Show of the Dumfriesshire and Galloway Horticultural Society, where the flowers took the leading honours in the open classes. The majority of the plants were arranged in a broad bank in a large house, and when at their best presented a brilliant spectacle. Among the best were Chrysanthemum Montigny, pale yellow, Charles Davis, Duchess of Sutherland, Edwin Molyneux, General Hutton, Henry Perkins, Henry Weeks, J. R. Upton, Lady Conyers, Lady Hanham, Lieut.-Col. Ducroiset, fine; La Triomphant, Mme. Gustave Henry, very good; Mme. Louis Remy, Mme. P. Radaelli, extra fine; Mme. R. Cadbury, excellent; Marquise Visconti Venosta, very fine; Miss Alice Byron, Miss Mildred Ware, Miss Olive Miller, very good; Mrs. F. W. Vallis in excellent condition; Mrs. Greenfield, Nellie Pockett, excellent here; Valerie Greenham, and Viviani Morel, with quite a number of others too numerous to detail. There are also a considerable number cultivated for cut flowers, while some nice plants from tops, and carrying good blooms, were included in the collection.—A.

Royal Horticultural Society's rules for judging.—The third revised edition of the society's code of rules for judging, and suggestions to schedule-makers, judges, and exhibitors for use at horticultural exhibitions, has just been issued, and can be obtained from the society's offices, Vincent Square, Westminster, price 1s. 6d.

A shrub with brilliant autumn tints.—A great many of the deciduous members of the order Ericaceæ are remarkable for the bright tints that the leaves assume in autumn before they drop, but in this respect they are by no means all of equal merit. One of the most brilliantly tinted is *Vaccinium corymbosum*, whose smooth, elliptic-shaped leaves, from 1½ inches to 2 inches long, die off a brilliant scarlet colour, and in a mass they suggest the gorgeous appearance of the hardy Azaleas when they are laden with blossoms in spring. Given a fairly moist soil, particularly if it is of a somewhat peaty nature, this *Vaccinium* will do well, and as a much-branched bush, from 3 feet to 5 feet in height, it is most effective. In a native state it occurs from Canada to Carolina and Georgia, and was introduced into this country in 1765. The small urn-shaped flowers are pinkish and not particularly showy; indeed, as a flowering shrub, it does not occupy a high position, but, as above stated, owing to its autumn tints, it stands in the foremost rank.—H. P.

Chrysanthemums at Brockwell Park.—The convenience for a Chrysanthemum display here is very limited, but there are reasonable hopes that before long something more satisfactory will be provided. In the conservatory adjoining what was the old mansion there is at the present an excellent collection of most of the popular varieties, such as are usually met with in the public parks. Descartes, a large Japanese Anemone of deep rich wine colour, is always in good form. Among big white Japanese, Miss A. Byron, Lady Byron, Mrs. Hy. Weeks, Mme. Gustave Henry, Miss Hetty Dean, Princess, Mme. Carnot, and Mutual Friend are all in capital form. Mrs. G. Mileham is a favourite everywhere, its beautiful bright rosy shade being very effective in mixed groups. The curious green Mme. Ed. Roger is very deep in colour this year, and is always an attraction to the general public. Mme. Paolo Radaelli is one of the most effective and one of the largest for such decorative groups as those we see in the parks, and for a choice bit of colour in the higher shades of crimson Alfriston and Eastman Belle cannot easily be surpassed. We noticed in the old-fashioned incurved section Baron Hirsch, whose rich golden chestnut colour is one of the brightest in this group. A few other varieties are worthy of mention, viz., Matthew Smith, Mrs. J. Shrimpton, Pride of Madford, Mr. A. Barrett, Millicent Richardson, and Leocadie Gentils, a peculiar silky yellow hairy variety of some years' standing.

Kochia scoparia.—It is questionable if we have ever had a more marked instance of an old plant being almost, if not entirely, lost to cultivation, and then bounding into popularity all at once, as happened in the case of this *Kochia*, which, according to books, is a native of Greece, and was introduced therefrom as long ago as 1629. For all this it was practically unknown when first brought forward by Mr. Cannell four years ago; yet so impressed with its beauty were the members of the floral committee of the Royal Horticultural Society that it was then given a first-class certificate. No exception to this honour can possibly be taken, for it has proved to be of great value in many ways, both for pot culture and for bedding purposes. As a "dot" plant over some low-growing carpeting subject it is seen to considerable advantage, the neat bushy plant tinged with red on the upper part suggesting some choice member of the Cypress family, instead of which it belongs to the order Cheripodiaceæ, and is therefore a near

relative of our domestic Spinach, a class whose ornamental qualities are, generally speaking, not of a high order. This *Kochia* has also developed into a market plant, for handsome examples may be seen in the florists' shops of London, and for this purpose its easy culture and rapid growth stand it in good stead. The seed may be sown in a greenhouse in spring, and the young plants grown on much as one would a Balsam.—H. P.

Chrysanthemum Moneymaker.—The descriptive name of this variety suggests the suitability of the plant for market, but it is equally well adapted for the collections of private growers. The plant has a good habit, a sturdy constitution, and may be grown to produce half-a-dozen flowers of large size, or a dozen to eighteen medium ones. The form of the flower is exquisite, and may be described as Japanese-reflexed. The florets are very regularly arranged, showing off the lovely ivory white to perfection. The plant comes into flower in October, and the display is well maintained until late November; height 4 feet. The floral committee of the National Chrysanthemum Society awarded a first-class certificate to this variety at their meeting in early October.—D. B. C.

Miniature-flowered Pompon Chrysanthemum Delight.—In the spring of the present year this dainty flower was distributed as a small-flowered single, but under proper culture the flowers are undoubtedly those belonging to the miniature-flowered Pompon section. Mr. H. J. Jones, in his catalogue, says it is a "neat flower with five or six rows of petals," but as seen in his collection a few days ago, it may be classified as a charming companion to Snowdrop and Primrose League, two of the best sorts of this type. The plant appears to be fairly free flowering, developing each bloom on a stiff, erect footstalk, and the flowers are of beautiful form, the colour a pleasing blush pink. There are many growers who desire to see the number of small Pompons increased, and this addition looks like the beginning of better things; height 4 feet.—D. B. C.

Two miniature-flowered single Chrysanthemums.—At the November show of the National Chrysanthemum Society at the Crystal Palace, Mr. H. J. Jones staged two large bunches of his new miniature-flowered single Chrysanthemums, named respectively Midget and Miniature. The former has a large, well-formed disc, with very short guard florets of a pretty pink, contrasting pleasingly with the yellow disc. In many respects the flowers are similar in appearance to some of the better Michaelmas Daisies, and there is little doubt they will have an attraction for growers who have a variety of uses for cut flowers. The second variety is a small almost yellow self, the guard florets being of a bright yellow colour with a disc of a duller shade of the same colour. These two new sorts are delightful companions, and staged together make a pretty effect. The plants develop compact little sprays so useful for the smaller receptacles employed in indoor decoration. The growth is fairly bushy, and the height is about 3 feet.—D. B. C.

New flowering shrubs.—Each autumn some new flowering shrubs are distributed from M. Lemoine's nursery at Nancy, and that the present is to form no exception to the rule is shown by the following list announced: *Pailadelphus Lemoinei Voie lactée*.—This, described as the result of crossing *P. microphyllus* and *P. nepalensis*, is a vigorous form, attaining the height of 4 feet to 5 feet. All the branches of the preceding year are covered with blossoms horizontally disposed. The slightly fragrant flowers are quite round, and consist almost always of five or six petals of a snowy lustre with yellow stamens. Double-flowered Lilacs, of which nearly all the numerous varieties in cultivation have been raised by M. Lemoine, receive the

following additions: Charles Sargent.—The enormous flowers are of unusual dimensions, and in colour violet-mauve with a metallic lustre. Duc de Massa.—Flowers large and round, with imbricated petals of a clear violet shaded purple. René Jarry Desloges.—The enormous flowers are of bluish lilac, shaded rose, buds purplish. A single-flowered variety is Muntgoldier, whose large blossoms are of a purplish red with white reverse, which feature is very noticeable. *Viburnum Charlesii*.—It is the first time that this beautiful Chinese species of *Viburnum* has been distributed. Readers of THE GARDEN had the privilege of making the acquaintance of this *Viburnum* by means of an illustration—September 6, 1902—when it was figured from a photograph forwarded by the Japanese firm of MM. Bachmer and Co. of Yokohama, from whom MM. Lemoine announce they have purchased the entire stock. It produces in the spring large rounded clusters of pure white flowers.—T.

Prunus spinosa purpurea.—In the autumn of 1904 this handsome plant was offered as a novelty in the French catalogues. The leaf of this variety of *Prunus spinosa* is quite as finely coloured as that of *Prunus Pissardi*, while it is distinctly more ornamental. It has the typical thickly-branched habit of growth of *Prunus spinosa* and numerous slender dark purple-red shoots. This new hardy shrub, with its numerous small rose-coloured flowers and attractive foliage promises, says a German gardening paper, to become a really valuable addition to this class of plants.

Dinner-table decorations at the Crystal Palace.—At the recent November show of the National Chrysanthemum Society at the Crystal Palace, with one exception, the competitors used nothing but single-flowered Chrysanthemums for table decorations, and it was admitted on all hands that their formidable rivals, the Japanese, were completely outclassed. This proves that taste in this respect is changing. In one instance the Japanese flowers were used, but though these were of a charming blend of colours, it must be admitted that they showed to great disadvantage when compared with those in which the single flowers were used, and we hope this is the beginning of better things. Since then we have seen other examples in which there has been the association of small-flowered singles and the Pompons, in which the colours have blended pleasingly, one lending effect to the other, and, in our judgment, considerably enhancing the display. With such proof of the adaptability of these two sections for decorative uses, surely this should lead to a less free use of the Japanese than was formerly the case.—C. A. H.

PLANTING FRUIT TREES.

PRIZE-WINNING ESSAY.

(Continued from page 330.)

IV. What points would you look for in selecting young trees to plant?

(1) They should be clean, healthy, and of sturdy growth. (2) They should possess well-ripened wood. (3) An abundance of fibrous roots is very desirable. (4) They should be true to name. (5) In their management due regard should have been paid to future form of tree. (6) They should be a reasonable price.

V. Do you recommend the use of manure at planting time? If so, what sort of manure, and how much for each tree? Describe the methods to adopt so as to secure the best growth during the summer after planting.

The lavish use of manure at planting time is attended with some danger, and it may be generally stated that manure is not necessary if the soil is naturally good and fertile. In the case of very poor soils, or soils known to be deficient in lime, manure is certainly necessary, and some lime rubbish may also be worked in at the time of preparing the soil. Farmyard

manure in a well-rotted condition is very suitable, and always gives satisfactory results, provided care be taken in its use. It must not be allowed to come in direct contact with young roots, and if it is placed in the holes at planting-time it should be placed at the bottom and covered over with a layer of fine soil. Again, it can be used in another way, and that is to thoroughly mix it with the fine soil to be used for filling in as planting proceeds; and it is just as well to avoid an excess at this point and rely more upon mulching. Mulching is always safe, and in addition to adding plant food to our soils it possesses a wonderful power of conserving moisture during the period of growth. As to quantity, a good barrow-load of well-rotted manure thoroughly incorporated with the fine soil will suffice for every half-dozen trees.

To secure the best growth after planting, if due attention has been given to planting as outlined above, careful cultivation is necessary. Weeds must be kept down and the surface soil periodically moved by the hoe. This tends to check any undue evaporation, and thus conserves the natural soil moisture. Mulchings of decayed leaves, mowings from the lawn, mixed with fine soil, and even a little decayed manure will prove

length. Whilst giving two-thirds as a general statement, it should be remembered that every shoot so shortened must be treated upon its own merits. Weaker shoots will require taking a little further back than stated above, whereas a little greater length is desirable in the case of stronger growing shoots. Many defer pruning until the second year, and, doubtless, there is reasonable evidence to show that such a step is necessary under certain conditions, but practice clearly shows, if pruning is judiciously carried out the first season, there is no loss, but an actual gain in time, so far as establishing the form of the tree is concerned; and this, be it noted, is imperative in the economical production of fruit. With older trees the operation may well be deferred until the second year, for it must be remembered that such trees will—if they have been properly managed—have their foundations already laid down, and should it happen that these trees have been planted in the spring, pruning may advantageously be left until the second year. Even with older trees useless and undesirable growths should always be removed.

Pruning Recommended—Assuming the trees have been planted in autumn under the favourable conditions outlined above, pruning may be

pruning must be done at the right time, for if done too early other laterals form, or if too late no good is served by such treatment. As there is a lack of sustenance in the stem to help in the formation of fruit buds at this time, second year pruning would be practically a repetition of the first, modifications being made if the growth shows it to be necessary.

It is important in pruning that all cuts should be well and clearly made.

VII. The best position in which to plant an orchard, and how to plant it.

Assuming that soil of fair quality is available, the selection of position must depend upon the following conditions: (1) Aspect. (2) Altitude. (3) Natural protection or shelter. Dealing with aspect, there can be no doubt about the advantage of a south, south-west, or west outlook. All three are good, but if we must have a best, by all means select a south-west aspect. Such an aspect secures the greatest advantage in the way of solar light and heat. Having selected a south-western aspect, we must now pay close attention to the altitude; high-lying, wind-swept areas are to be avoided, likewise the lowest points of the valleys. The former are always accompanied by damage from winds (large falls of fruit), and are generally

too cold, whereas the chief danger of the latter lies in their liability to spring frosts, in addition to possible danger from excessive heat. Reasonable altitude is not always a drawback if it is accompanied by efficient shelter.

Natural Protection or Shelter may be afforded by surrounding hills, and if these effectually shut off the cold, biting east and north winds little more can be desired, and where these natural barriers do not exist recourse must be had to planting quick-growing trees. There are certain points to be observed in planting for shelter. Shelter without shadow is an axiom with planters, but that does not, unfortunately, meet every-thing.

Shelter belts, if not carefully planted, are liable to encroach, especially by means of their roots, upon the surrounding ground, and if they are planted too near they effectually appropriate food which ought really to belong to the fruit trees of the orchard. There is, perhaps, no better method of curtailing this possible encroachment than by planting at a safe distance from the orchard, and it is a good

plan to have a road between the shelter belt and the orchard.

How to Plant.—It is rapidly becoming more generally accepted that the best method of planting is what may be termed the "block system," that is to say, blocks of certain varieties should be planted in such a manner that inter-cultivation between the trees by means of horse hoes is readily carried out. The general plan adopted by the Northumberland County Council on their fruit-growing demonstration stations ought to be more widely known. Definite groups are made up as follows: Group I.—Half standards; Group II.—Pyramid Apples, Pears, and Plums; Group III.—Half standard and bush Apples mixed (the former being planted in squares 15 feet apart, and the latter planted 7½ feet apart); Group IV.—Half standard Apples (15 feet with fruit bushes 5 feet apart). These groups are interesting, and, moreover, possess the advantage of being intensely practical.

Little need be said concerning the advantages presented by such planting; they are so obvious that one can only wish it might meet with general adoption in all newly-planted orchards.



ROSE TIME AT HITCHIN: PART OF A FIELD OF TEA AND HYBRID TEA ROSES.

very effective and do much to encourage what is so eminently desirable in the case of young trees, viz., surface rooting.

VI. Should young fruit trees, especially orchard trees, be pruned at planting time, or should this operation be deferred to the second year? Give particulars of the pruning you recommend, whether for the first or second year.

There is, perhaps, no section in connexion with the vast subject of fruit growing upon which there is greater diversity of opinion than the question of pruning young and newly-planted fruit trees. The real issue is dependent upon several conditions, which are, briefly, as follows: (1) Time of planting. (2) State and fertility of soil. (3) Age of tree. (4) Variety.

If the soil is good and the young trees are well grown, it should be remembered that the primary object is to lay down the foundation of the future tree. Proceeding with this object in view, and assuming the trees are everything to be desired, having been planted in November under favourable conditions, judicious pruning may be performed with excellent results. All surplus branches should be cut clean out, and all other growths intended to play a part in the future tree should be cut back about two-thirds of their

carried out during the months of November, December, January, or even February, providing the weather is open, but on no account must pruning be done during frost. Operations may be commenced by removing all surplus growths and shortening the remainder in accordance with their strength, weaker shoots being cut harder back than the more vigorous ones. For average conditions about two-thirds of the length will suffice, and in performing this operation care must be taken to cut to an outside bud. An ideal tree should be kept in mind in all pruning, a nice, evenly-balanced tree, well opened in the middle to facilitate the entrance of light and air being the most desirable end to aim at. Further attention will be necessary in July, when the lateral growths may be pinched back to about 2 inches in length; any that are wanted for retaining the shape of the tree may be left. This point of summer stopping or pinching is of the greatest importance if we wish to obtain a good supply of bloom buds. It is further good sound practice to give the laterals which were treated in July further attention about the middle of September, when the laterals previously treated may be cut further back nearer the leader. The July pruning will have caused fruit buds to form. The September

GENERAL PLAN OF ORCHARD

Bush Apples planted $7\frac{1}{2}$ feet by $7\frac{1}{2}$ feet.
Half Standards planted in squares 15 feet by 15 feet.
Pyramid Apples, Pears, and Plums planted 10 feet by 10 feet.
Fruit Bushes planted 5 feet by 5 feet.

THE ROSE NURSERIES OF
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MESSRS. HARKNESS AND CO.,
HITCHIN.

THE old-world town of Hitchin, pleasantly situated in North Hertfordshire, and at one time noted for its straw-plaiting industry, has of late years become particularly associated with Roses. For to the north of the town, on the Bedford Road, we find the splendid Rose garden of Mr. E. B. Lindsell, who for many years has held the foremost place among amateur growers, not to mention other keen amateurs always well to the front at gatherings of the National Rose Society, while on the gently undulating ground, a mile or so to the south of the town, are the famous Rose nurseries of Mr. R. Harkness. Here the soil is eminently adapted for the purpose, being of an intermediate character—a fine friable loam with good drainage—favouring the formation of abundance of fibrous roots and strong, healthy growth. A visit at any time during the months of June or July is well repaid, and Hitchin is easy of access, being only some 32 miles from London on the Great Northern main line, a matter of 40 minutes' railway journey by the fast trains from King's Cross.

Mr. R. Harkness was for many years associated with his brother at Bedale in Yorkshire in a general nursery business, of which Roses and hardy flowers were special features, and there was quite a gentle flutter in the Colchester dovescotes when in 1887 the brothers Harkness secured for the first time the much-coveted champion challenge trophy and gold medal of the National Rose Society at their metropolitan exhibition, the same year also winning the Jubilee challenge trophy and gold medal offered for the first time at the National Rose Society's northern show at Edinburgh.

So auspicious a commencement was followed by other noteworthy successes, and some ten years ago Mr. R. Harkness decided to throw all his enthusiasm and energy into the cultivation of Roses. Influenced no doubt to some extent by Mr. Lindsell's successes, he decided on Hitchin as a promising district for the establishment of what has since developed into one of the largest Rose nurseries in the country. The result has amply justified his choice, for since 1895 he has won the champion challenge trophy of the



THE HYBRID TEA PRINCESSE CHARLES DE LIGNE
(IN MESSRS. HARKNESS'S NURSERY.)



THE NEW HYBRID TEA DAVID HARUM (IN MESSRS. HARKNESS'S NURSERY).

National Rose Society no less than five times, and the National Rose Society's northern trophy seven times, a record of which he may well be proud, while the high standard of general excellence attained is evidenced by quite an array of challenge cups, medals, and other substantial prizes won in the keenest competition.

But though Mr. Harkness is a thorough going exhibitor, and, like such enthusiasts the late Mr. Foster-Meliar, has all the exhibitor's keenness for glorious individual blooms, you find at Hitchin an immense and well-grown stock of all classes of Roses. With 110 acres at his disposal, 25 acres of which are specially devoted to Roses, there is room for all. A fine stretch of plants for pillars and pergolas is sure to arrest early attention. Here Dorothy Perkins, Mme. Alfred Carrière, Blush Rambler, Crimson Rambler, Reine Olga de Wurtemberg, Claire Jacquier, Electra, and many others, grown in large numbers, are flourishing, as Roses will and do when they are thoroughly happy.

This year, owing to the baneful effects of the May frosts, which destroyed practically the whole of the first and finest buds, the flowering season was somewhat later than usual, but when we visited the nurseries about mid-July the profusion of bloom on the more decorative Hybrid Teas was a sight not soon to be forgotten. Row after row of such varieties as Killarney, Lady Battersea, Marquise de Salisbury, Liberty, Viscountess Folkestone, Mme. Abel Chatenay, Papa Gontier, Rainbow, Antoine, Rivoire, La France, Grüss an Teplitz, Gustave Regis, Mme. Pernet-Ducher, Mme. Jules Grolez, Mme. Ravary, and Prince de Bulgarie testified to the popular demand for these lovely sorts for beds and massing. The Chinas, too, made a wonderful display.

Especially interesting were the trial rows of all the newer sorts, of which our illustrations of David Harum and Princesse Charles de Ligne, from photographs taken in the nursery, are a sample. Mr. Harkness was emphatic on the merits of Dean Hole, a new Hybrid Tea, which promises to become a strong favourite with exhibitors; Lady Ash-ton, which is certain to prove a grand decorative variety; Hugh Dickson, Mrs. Conway Jones, Mrs. D. McKee, three fine exhibition Roses; Gustave Grunerwald, M. Joseph Hill, M. Paul Lédé, La Tosca, and Pharisaer, all destined to grace our gardens with fresh beauty and interest.

In another stretch there were hundreds of plants of such sorts as Caroline Testout, Bessie Brown, Mildred Grant, Kaiserin A. Victoria, Florence Pemberton, Alice Lindsell, Gladys Harkness, Lady Moyra Beauclerc, Marquise Litta, Mrs. W. J. Grant, and all the finest of the Hybrid Teas generally classed as best for exhibition purposes, though many of them make splendid garden varieties,

with Caroline Testout as *par excellence*, a Rose for everybody and for almost all purposes.

But finest of all was a magnificent breadth of 20,000 Teas, which alone were well worth the visit. Growing vigorously, with lovely foliage and exquisite flowers, they were evidently well satisfied that their lot had been cast in a fair ground, and responding accordingly. Many rows of Maman Cochet, White Maman Cochet, and Maréchal Niel were, of course, conspicuous, but specially good were Ernest Metz, Medea, Souvenir de Pierre Notting, Marie van Houtte, Souvenir d'Elise, Anna Olivier, Lady Roberts, Mme. Lambard, Mme. Jean Dupuy, G. Nabonnand, and Enchantress, not to omit Corallina, one of the best of the decorative Teas of recent introduction, and a fine autumnal. But it is quite impossible to enumerate all, and, indeed, unnecessary. All were there and all were good. One square of about 3,000 of the old Gloire de Dijon excited enquiry, and Mr. Harkness assured us there was still a great demand for the Rose which, it will be remembered, the late Dean Hole said he would prefer to any other were he condemned to grow but one variety.

Mr. Harkness has still a warm corner in his heart for the old favourite Hybrid Perpetuals, and points out that, while popular favour has of late years somewhat inclined to that modern and charming class the Hybrid Teas, the latter still include no rivals in colour or perfume to Charles Lefebvre, Alfred Colomb, Fisher Holmes, and Duke of Wellington, and he is sure, in spite of hasty prophecy in some directions, that it will be a long time before the best Hybrid Perpetuals are banished from the garden. Needless to say, many thousands were here, from Xavier Olibo and Horace Vernet to the grand new white Frau Karl Druschki.

Long rows of Briar stocks, on which the process of budding had just commenced, raised visions of the future; but that is a story which must be told next year. We thank the genial champion for a most interesting round, and our all too brief visit comes to an end.

CORRESPONDENCE.

(The Editor is not responsible for the opinion expressed by correspondents.)

THE BEST APPLES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I have read with interest your recommendations of the best varieties of Apples. No doubt Cox's Orange Pippin is the finest Apple grown, but it should not be indiscriminately recommended, since in many places it is liable to canker. The market gardeners in this neighbourhood find themselves obliged to cut back their Cox's Orange trees and regraft them with other varieties. I speak feelingly, as I have been obliged to saw away half of a fine pyramid of this variety owing to canker. Then you recommend Bismarck. This variety is accused of only bearing on its last year's wood, and no accusation could be much more serious in the eyes of those planting orchard trees. This accusation is justified by my limited experience of three years, both on Crab and Paradise stocks. But on this point it would be interesting to hear the experiences of others. In this neighbourhood I believe the two most

satisfactory Apples to be Lane's Prince Albert and Allington Pippin. E. M. BLACKBURN.
Thakeham, Pulborough.

EARLY PEARS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—“G. W.” (page 293) mentions Pear Aspasie Aucourt as being a good early variety, and if it comes in as early as Doyenné d'Été it certainly deserves a place in every garden, as the little Doyenné d'Été is hardly worth growing; it is small and flavourless, and wants eating from the tree to be relished at all. I much prefer Beurré Giffard, which ought to be well known here. In a famous French list this is given a prominent place, but Aspasie Aucourt is not mentioned. Beurré Giffard is a medium-sized fruit of a fine colour—yellow and red—with melting flesh and lightly perfumed. It is a good bearer, and requires thinning early in the season. It should not be neglected. Mulch and water freely, two very necessary details with early Pears. Its season is late July and beginning of August. Williams' Bon Chrétien, Clapp's Favourite, and Jargonelle are the best of the early section, but in each case the fruit should be gathered before it is quite ready.

Leonardslee Gardens.

W. A. COOK.

WHERE CHRYSANTHEMUM EXHIBITIONS FAIL.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—While we have reason to congratulate ourselves on the progress made at the exhibitions of Chrysanthemums throughout the country, still much remains to be done. It is astonishing what a lack of enterprise there is on the part of those responsible for the management of these shows. No matter where we may look, whether it be the great show of the National Chrysanthemum Society at the Crystal Palace, or in the more important provincial towns throughout the United Kingdom, or even in the out-of-the-way local shows which one meets with on every hand, there is the same want of representation of the smaller decorative sorts. In the majority of instances the Japanese varieties largely preponderate, and even the once-popular incurved varieties are poorly represented. Reflexed and Anemones are rarely seen, and only in a few special centres are classes provided for the large-flowered Japanese Anemones. These might well receive some encouragement, and the society taking them in hand would deserve special recognition. The beautiful tasselled forms of the Japanese Anemones lend themselves so well for artistic work in a cut state that it is a matter for surprise cultivators have not given their attention to them. So long as the public taste is not educated to this standard, so long will the charms of these quaint flowers remain unrecognized. In one or two instances, and this in special localities where there may be an adherent to this type of the flower and the Pompon sorts, these may be represented. Yet among this latter section of the small-flowered Chrysanthemums delightful material is to be found, and, most important of all, they are easy of culture. Instead of the Pompons being grown in rigidly disbudded form they should be in freely-flowered sprays, where they should be either naturally grown or only partly disbudded. Wherever this type has been represented they have never failed to interest, and it is quite certain that if more encouragement were given to them by those responsible for the management of the shows, the latter would always be more interesting from the public point of view. In the last category may be included the Pompon Anemones, which in the earlier days were well grown and beautifully exhibited. Plants in the conservatory are always most interesting, and they are of the greatest use for displays indoors. The foregoing, together with the beautiful singles, which are now to be had in great variety, should be more liberally

catered for. These, when grown naturally or partially disbudded, develop excellent sprays of blooms. The last decade has seen a rage for big things, more particularly among Chrysanthemums, and so long as societies pander to this one-sided taste, which after all only represents a limited number of enthusiasts, the societies will fail to achieve the object for which they were created. Now is the time to consider this matter. Within the next week or two schedules of prizes will be formulated, and the writer sincerely hopes that advantage will be taken to alter, to some extent at least, the present unsatisfactory state of affairs.

Highgate, N.

D. B. CRANE.

COOKING POTATOES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—The Potato crop seems unequal this year. Good in some parts of the country, it is poor in others, and growers seem to impute the failure to the fatal frost on May 22, checking the growth of the tubers. This being the case, it is more than ever important to economise the Potatoes, and, as the very economy I am going to preach is absolutely the only right way of treating that much ill-used vegetable, it serves two ends.

Potatoes must never be peeled before cooking. Write these words up in your kitchens; lay down this law as that of the Medes and Persians that altereth not. There is nothing that a cook is so obstinate about as this, which is a curious fact, for it takes a great deal more time and gives a great deal more trouble to peel the Potatoes than merely to wash them and put them into the pan. They, nevertheless, insist on disobeying your orders, and your Potatoes are sent up backed into sodden yellow lumps instead of being placed before you as beautiful snowy balls of flour. They ought, moreover, to be steamed instead of boiled, and, if it is preferred, peeled in the kitchen before serving, or they can be baked in their jackets, a still more nutritious way of eating them.

A celebrated physician went into the whole subject some years ago, and reported that when Potatoes were cooked without removing their skins the loss of nutritive material was only 3 per cent. against the loss of 14 per cent., or one-seventh, which was the result of peeling before boiling. I am sure we all of us remember, when the time came for burning weeds in the garden, how as children we used to purloin Potatoes and a pinch of salt, and cook our lunch in the red-hot ashes. How delicious the meal was to the healthy appetite of the hungry child on a fine October morning, and how wholesome—the Potato consumed in its integrity—cooked under perfect conditions!

A. DE L. L.

A NATIONAL HARDY PLANT SOCIETY.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—The large and varied classes of plants grouped under the heading of “Hardy Perennials” to-day enjoy a widespread popularity among all classes of horticulturists, and the number of their devotees is daily increasing. Every lover of outdoor gardening rejoices that this is so, for nothing is more gratifying than to see others taking up the cultivation of the plants we love. I doubt not that every hardy plantsman would willingly support any movement which he really believed to be capable of advancing the popularity and interests of hardy plants, and that conviction prompts me to put a question to the readers of THE GARDEN as to whether it is desirable to organise a “National Hardy Plant Society.” National societies exist in the interests of the Rose, the Dahlia, Chrysanthemum, Carnation, and many other popular flowers, and we know of the good work accomplished by these societies. Why then should there not be a society devoted to the interests of hardy perennials?

The number of hardy plantsmen, professional and amateur, is large—quite large enough to form

a very strong society—and surely if all were united under one banner a power for good would result.

In the matter of exhibiting alone much could be done, and indeed needs to be done, for although we see some grand exhibits of hardy flowers at our great horticultural exhibitions, it must by all be admitted that there are greater possibilities than have ever yet been attained. What a glorious show could be made at an annual exhibition of "The National Hardy Plant Society," the schedule compiled by a committee of experts appointed by the members of the society, the exhibitors comprising the foremost specialists of the land, bringing together the very finest of the country's produce to be adjudicated upon by the best qualified judges. Other shows that could be arranged at various seasons are an Iris show, a Pæony show, an Alpine show, &c. Much experimental work and research could be accomplished by the society that cannot be undertaken by individuals, valuable and interesting information could be disseminated among the members by pamphlets or a journal, and in many, many ways it seems to me the society could do much good work. It is not, however, my desire to occupy further space in your journal with my own views. I would rather leave it to those whom it may interest to express their opinions and answer the question: "Is it desirable to organise a 'National Hardy Plant Society?'"

Cheshire.

HEATHER BELL.

CLEMATIS DAVIDIANA.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I was much interested in the excellent illustration of this plant on page 273, and one wishes that it could be induced to succeed as well in every garden. Unfortunately, it does not grow freely everywhere, and in these gardens succumbs to the wet and cold of winter if left in the open. Your correspondent "E. M." page 299, I know grows this Clematis well, as, in fact, he does all hardy plants, and I have seen it making a good display in his excellent borders. This may, perhaps, be partly owing to the somewhat milder climate and more porous soil. When seen as depicted on page 273 it must be a beautiful garden plant; but unless it will grow with some freedom it is hardly worth troubling about. Judging from past experience I think it must prefer a light loamy soil and sheltered position.

Elstree, Herts.

A. E. T.

THE ROSE GARDEN.

ROSE LADY MOYRA BEAUCLERC.

THE accompanying illustration of this Rose speaks for itself. The photograph was taken by that keen rosarian Mr. G. A. Hammond of Burgess Hill, Sussex, from a flower of this variety, grown by himself this summer. He tells me that the photograph does not do the individual flower justice, and that it was the finest flower of Lady Moyra Beauclerc that he has yet seen. There is no doubt it was a grand flower, one of those flowers rosarians delight to think of as a "medal bloom," not necessarily meaning that it actually received a medal as the best Rose in the show, but that if it could have been exhibited it would no doubt have done so! Lady Moyra Beauclerc has always been one of my favourites, why it would perhaps be difficult to say, but there is something unique in its colouring, and yet it is a Rose that has not met with the general recognition that it undoubtedly deserves. Sent out by Messrs. A. Dickson as recently as 1901, although familiar to Rose

growers for some years prior to being distributed, it is well worthy of a trial, and anyone making out a list of the newer Roses might well find a place for Lady Moyra. It does equally well as a standard or dwarf, is a moderately vigorous grower, and its colour is not too flatteringly described in catalogues as "rich, bright madder rose, with silvery reflex." It is all that and something more; but what that something more is I cannot say.

The beauty of some of our Roses is not describable in prosaic English, or any other language for that matter. One has to turn to Nature herself, and in the sunrise glow or the glare of the sunset one catches glimpses of the colours that have no name.

H. E. MOLYNEUX.
Purley.

ROSES FOR BEGINNERS.

THE thoughts of all who love their gardens are turned at this season to practical work, and this consists in choosing the flowers and the fruits to plant within the next few weeks. Roses will probably occupy a large share of attention, and a selection of the most beautiful and inexpensive varieties is appended. This selection comprises only varieties of strong and free growth and abundant flowering.

Hybrid Perpetual. This is, unfortunately, a much-neglected group, but it contains many brilliant flowers. The most noteworthy addition of recent years is the pure white [Frau Karl Druschki, which is not only exceptionally free, but the flowers are large and their whiteness is peculiarly conspicuous. Other sorts that may be chosen are Abel Carrière, maroon; Alfred Colomb, red; Baroness Rothschild, pink, but unfortunately scentless; Boule de Nèze, pure white; Captain Hayward and Charles Lefebvre, both crimson; Clio, flesh colour; Crown Prince, crimson-purple; Camille Bernardin, red; Duke of Edinburgh, crimson; Dupuy Jamain, cherry red; Ella Gordon, similar shade to the last; Etienne Levet, carmine; Fisher Holmes, crimson-scarlet; General Jacqueminot, red, a well-known market Rose; Horace Vernet, crimson-purple; Louis Van Houtte, very dark crimson, almost black; Mme. Eugene Verdier, rosy silver; Margaret Dickson, flesh colour; Marie Baumann, carmine; Merveille de Lyon, rosy white; Mrs. John Laing, pink; Prince Camille de Rohan, maroon, almost black, very sweetly scented; Royal Scarlet, a very free variety, of a most effective scarlet colour; Spenser, pink; Sultan of Zanzibar, maroon, very dark; Suzanne Marie

Rodocanachi, cherry red; Ulrich Brunner, red; Violet Bowyer, flesh colour; and Xavier Olibo, one of the darkest of all Roses. It is only possible to give a brief description of the colouring if the selection is to be kept within reasonable limits.

China Roses.—This is a most important class for the garden, exceptionally free, and continuing to bloom until December days when the weather is fairly mild. The common China or monthly Rose is well used when it is grouped with Lavender and Rosemary; Cramoisie Supérieure,



FLOWER OF HYBRID TEA ROSE LADY MOYRA BEAUCLERC.

dazzling crimson; Fabvier, this is even brighter, Irene Watts, soft salmon white; Mme. Eugene Resal and Mme. Laurette Messimy are very much alike, the flowers showing many beautiful shades of red, rose, and buff, and they are now much grown; Queen Mab, apricot and rose; and Red Pet, intense crimson.

Tea Roses.—Not a few of these are climbing sorts, but many form quite bushes, a useful list being as follows: Anna Olivier, a Rose of delicate colouring—the bud is very beautiful; Beauté Inconstante, a mingling of copper red and yellow; Catherine Mermet, not always a success, but too beautiful to pass over—the flower is of rosy colouring and charming in form; Comtesse Festetics Hamilton, a soft carmine colour, shading to copper in the centre; Comtesse Riza du Parc, salmon and rose and fawn, very free; Corallina, a delightful garden Rose, deep coral red, very free both in summer and autumn; Dr. Grill, rosy yellow; Francis Dubreuil, crimson; G. Nabonnand, rosy yellow, very beautiful; Hon. Edith Gifford, white, touched with flesh colour;

Jean Ducher, yellowish salmon; Mme. Antoine Mari, rose and white; Mme. Chedane Guinoisseau, canary colour, very free and beautiful; Mme. Hoste, pale yellow; Mme. Lambard, deep rose; Maman Cochet, delicate rose and white, one of the best of garden and exhibition varieties; Marie Van Houtte, delicate yellow, with rosy margin to the petals, a glorious Rose, which should be included in the smallest selection; Mrs. Edward Mawley, salmon pink; Papa Gontier, crimson; Perle des Jardins, canary colour; Princesse de Sagan, the most scarlet of the Teas, but the plants are somewhat weakly in growth; Rubens, rosy white and yellow centre; Souv. de Catherine Guillot, a mingling of apricot and carmine; Souv. de l'Elise Vardon, creamy white, passing to yellow in the centre; Souv. de J B Guillot, coppery red, a beautiful Rose; Sulphurea, soft yellow, very free, and continuing long in bloom; White Maman Cochet, a sport from Maman Cochet; and Yvonne Gravier, a charming garden Rose, very free, and of delicate rose and cream shading.

Hybrid Tea—Antoine Rivoire, rose and yellow, excellent; Augustine Guinoisseau, flesh white, very free, especially in autumn; Belle Siebrecht, also known as Mrs. W. J. Grant, pinkish rose, very fragrant and vigorous; Camoens, one of the best, and worthy of a place in the first six, rosy white in colour; Caroline Testout, rose, fragrant and double, should be in the first six also; Grace Darling, white and rose; Grand Duc Adolphe de Luxembourg, red, very beautiful; Grüss an Teplitz, crimson, sweet, and vigorous; Killarney, pinky rose, more a half climber than a bush; La France, too well known to need description; Mme. Abel Chateau, salmon rose, deepening towards the margin of the petals; Mme. Jules Grolez, satin rose, very free; Mme. Pernet-Ducher, yellowish white; Mme. Ravary, apricot colour; Marquise de Salisbury, bright red, very fine of its colour; Prince de Bulgarie, a delicately-coloured Rose, salmon and flesh shades intermingling; and Viscountess Folkestone, one of the finest of all garden Roses, free, vigorous, sweet, and delicate in colour, which is white, with a suspicion of pink in the centre.

(To be continued.)

JOTTINGS ABOUT ROSES.

A NEW ROSE BOOK.—Of the very latest work on Roses, which is now on my table, I can only say that it is really hard to understand how it found a publisher in this country, and still harder to see what good purpose was served in its translation. For "The Amateur Gardener's Rose Book," to which I refer, is a translation from the German of the late Dr. Julius Hoffman. Not a careful translation, in which all blunders and inaccuracies have been carefully expunged, but in which they have, unfortunately, been perpetuated.

I believe it was Dr. Johnson who once remarked that "criticism, as it was first instituted by Aristotle, was meant as a standard of judging well." I am not aware whether this interpretation of criticism holds good to-day; at any rate, in this case it cannot do so, because the standard attained is too low to merit praise. First of all, the value of the book has, to my way of thinking,

been completely sacrificed in the effort to translate it literally, and the result is that both style and grammar have suffered in the process. The following excerpt from page 67 will explain what I mean: "In the case of many highly successful buddings, the union of the bud with the stock is not so firm that it can be altogether trusted. It is to be feared that tempestuous winds would seize the young head and be able to tear it out of the socket where it has united with the wild stock."

Turning to page 16 we are told that "Roses do not like a soil that is tenacious or clayey"—a clearly misleading statement. On page 73, under the heading of "Propagation from Cuttings," we are told that "this method is freely practised in

before they had been gardening twelve months should make a note of it for future reference. The alphabetical list of the choicest kinds of Roses, with which the book concludes, is as perfect an example of careless editing as I have seen.

The list contains some good Roses as well as some uncommonly bad ones, and has been brought up to date by the translator. The first page (page 119) contains a rather astonishing statement. We are told that the Tea Rose Adam was raised in 1838 by Adam, and that its flowers are large, full, cup-shaped, drooping, pink and white, but that it is synonymous with Souvenir d'un Ami. Curiosity led me to look and see whether this latter variety was excluded from the list on this

account, but I found it in due course on page 150. Despite its supposed synonymity with Adam, its description, as will be seen, is not made to tally with it. "Souvenir d'un Ami raised by Desfugères, 1846 Large, moderately full, globular, delicate pink, flowers drooping on long stalks. Growth regular, fragrant." The value of this list may be still further gauged by comparing pages 124 and 140, which enables one to discover that in the intervening pages one Rose almost completely changes its colour. A brief extract is again required to explain my meaning. Page 124: "Christine de Noné, very large, well filled, purple chestnut-red, centre shining pink, with silky silvery reverse; free flowering." Page 140: "Mlle. Christine de Noné, very large, full, chestnut purple-red, wallflower-red in the middle; vigorous, free and lasting in blossom." Of course both these Roses are identical. On page 130 Frau Karl Druschki is described as being "similar to Mme. Joseph Combat." Mme. Joseph Combat is the variety meant, but from my experience of this Rose I should advise rosarians to leave it severely alone. The value of the additions made by Mr. Weathers, the translator, is slight, as they are mainly extracts from nurserymen's catalogues, and the same carelessness in editing is apparent to the very last page (page 152), where Messrs. William Paul's lovely new wichuraiana Waltham Bride is printed Waltham Pride, and Lady Gay appears as Lady Gray. The Germans have made such immense progress during recent years both in raising and growing Roses that one is sorry to have to write disparagingly of a book which purports to give the methods of culture, &c., adopted by our Continental friends. Nowadays, however, we in England have such

a wealth of good garden literature that we are scarcely prepared to pay 7s. 6d. for an unreliable work.

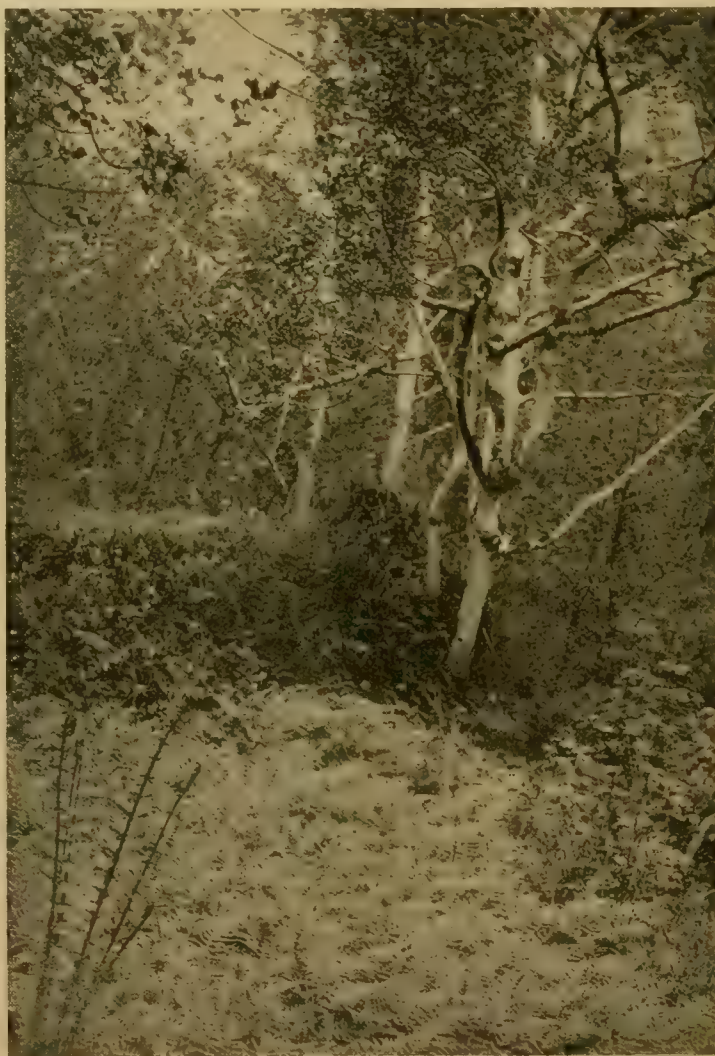
ARTHUR R. GOODWIN.

(To be continued.)

A NEW ODONTOGLOSSUM.

(O. VUYLSTEKEE.)

ONE of the most remarkable hybrid Odontoglossums ever shown was sent to a meeting of the Royal Horticultural Society on the 7th ult. by M. Ch. Vuylsteke, Loochristi, Ghent. The parentage of this new Orchid is unknown, but it is supposed to be *O. ardentissimum*



THE BEECH FERN IN A DONEGAL WOOD.

great establishments to secure large numbers of the most favoured bush or pot Roses. It is also employed for increasing valuable novelties, of which the nurseryman can only secure a large number in a short time by this means." Apparently the author had never heard of grafting Roses under glass, at all events he does not refer to it. Part VII, which is devoted to the "Enemies of the Rose," contains the following succinct remarks: "It may be accepted as a remarkable fact, capable of proof, that the more a plant is exposed to the attacks of different pests the more miserable its growth becomes." Those readers of THE GARDEN who did not discover this truly remarkable fact

upon *O. crispo-harryanum*. If this is so, then *O. Vuylstekeæ* is a variety of *O. venustum*. The colouring of the flower is deep crimson, through which white streaks show clearly on sepal, petal, and lip. The tips of the sepals are white, and there is also a faint margin of white all round the flower, becoming more pronounced in the lip. Seen from the back, the sepals and petals are marked with a broad central band of white. A first-class certificate was awarded by the Royal Horticultural Society's Orchid committee.

FLOWER GARDEN.

BEECH FERN OR MOUNTAIN POLYPODY.

(*POLYPODIUM PHEGopteris*.)

A SOMEWHAT fragile plant, and one that disappears with the first frosts of autumn, is the Beech Fern or Mountain Polypody. It has a slender, creeping stem, with black fibrous roots. The fronds, which appear in May, are of a delicate green, some 7 inches to 1 foot long. It grows in moist mountainous districts and damp woods, and the vicinity of waterfalls. The photograph was taken in a Donegal wood, where it flourishes and is spreading rapidly. S. M. W.

CALVAT'S CHRYSANTHEMUM SEED-LINGS IN THE PARKS.

It is now just about thirteen years since Calvat's flowers first became known in this country. Almost immediately he seemed to sweep from the English show-boards everything that was deemed first-rate in the Japanese section up to that time. For some years M. Calvat had almost a monopoly, other French raisers being considered of no account from our exhibitors' point of view. More recently, however, Pockett of Melbourne and several English raisers have entered into keen competition with the great Frenchman, and the contest is by no means yet at an end.

It frequently happens that long after a well-known variety is discarded by the grower for show, and is considered



A REMARKABLE NEW ODONTOGLOSSUM. (Natural size.)

unsuitable for the show-board, that it still will occupy a prominent place in the collections at our London parks. Many a time have we met with an old, almost forgotten, show flower in this way. Our recent visits have called to mind many such, and these largely of the Calvat race. M. C. Molin, Mme. C. Terrier, a very pretty rosy-coloured flower; Mrs. C. Harman Payne, one of Calvat's earliest, and for a time most popular of varieties; Louise, N. C. S. Jubilee, President Nonin, President Bevan, Mme. Ed. Rey, C. Roissard, a beautiful rich purple, still useful for its colour, are all well shown in the Southwark Park collection. Others noticed elsewhere in good form are the

ever-curious Mme. Ed. Roger, the best of all the green varieties extant. M. Pankoucke, Soleil d'Octobre, Amiral Avellan, Le Grand Dragon, all yellows. In whites there are Mme. Gustave Henry, Souvenir de Petite Amie, two of the most popular. Commandant Blusset is a rich purple; but of all we much prefer President Borel, a lovely shade of rosy purple-amaranth difficult to describe, but one of the most deservedly popular. Mme. Paolo Radaelli is in several of the park collections. Mme. Carnot, F. S. Vallis, and Lt.-Col. Ducroiset are a few others of Calvat's that are frequently met with. C. H. P.

A NOTE FROM PORTUGAL.

I SEND you a photograph of *Cosmos* grown in our garden here. This picture cannot give an idea of the splendour show the flowers made. Some of the plants were more than 8 feet high.

THEREZA FRANCO.

Comilha, Portugal.

CHOISYA TERNATA.

THE planting of sundry well-rooted layers of this beautiful evergreen against a low wall has led us to draw attention to its merits. Its inclination is more towards assuming a bushy habit, but it covers a wall well if lightly fastened to the same, and the very slight protection necessary is thereby afforded. Introduced from Mexico as far back as 1825, it figures in old garden books as a stove evergreen, and is therefore one of the many instances of plants utilised for outdoor work that in bygone days were only grown under glass. Given a warm position on a south wall and a sandy loam with gravel or sand below, it grows luxuriantly and flowers well, requiring no protection. It is produced readily from cuttings, but good large plants are obtained much more expeditiously from layers, the only treatment

necessary, if low shoots are available, being to slice them a third through and peg into the ground at the part of the shoot where they can be most easily and permanently secured, keeping the ground fairly moist for a time until root action has commenced. The fact that this Mexican plant can be grown thus easily outside leads to the inference that in its native habitat it must be found on high ground where the night temperature is occasionally low, and is an illustration of the importance of obtaining information as to the conditions under which plants grow.

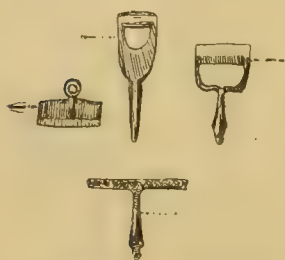


COSMOS BIPINNATUS IN A PORTUGUESE GARDEN.

GARDENING FOR BEGINNERS.

SIMPLE HINTS.

GARDEN TOOLS. — These must be of various descriptions. Spades, forks, hoes, rakes, picks, knives, saws, shears, scythes, rollers, wheelbarrows, water-pots, and many other things. But once purchased they should always have a place to themselves, where, having been well cleaned after being used,



NECESSARY SUMMER TOOLS.

(Dibble, Dutch or push hoe, common or draw hoe, and rake)

they can be hung up or otherwise stored. It is surprising how little space tools need. When on hooks, or large nails, they can be hung up round a shed. A shed made with a wood frame, and coated with corrugated iron, does not cost much, and is very enduring. It may even be large enough, if near the greenhouse or frames, to be used as a potting shed also. All tools should be kept quite clean, as then they work more freely and last longer. Always leave water-cans upside down after use. Give barrows, pots, &c., a coat of paint occasionally, as it pays in the end. Keep one large pruning knife for rough work, and a small one in the pocket for common use.

Digging ground, whether with spade or fork, is a simple process, and is practised on all plots of soil not trenched and between each kind of crop. Light steel spades or forks enable this work to be done without rendering the labour exhausting. But to move the soil as deep as possible, say 12 inches, the tool blade or tines should be new and long. Digging necessitates opening at one end of a piece of ground a trench 12 inches wide and deep, and casting it out ready to fill the trench left when the second half of the plot is done. If the plot be so divided as recently suggested for trenching, or if the piece of ground be dug from one end to the other, then the whole of the soil from the trench must be wheeled in a barrow to the end where the digging is concluded for filling the trench. The tools should be kept upright, and with the foot sent down into the soil to their full length so that the movement of the ground may be as deep as possible. In digging, also, the soil should be kept quite even and level, as that shows good work.

Forking is moving the soil a few inches in depth as amidst growing crops, where it has become too hard or is weedy, or the weeds need burying, or amongst flower beds or borders. This work, if done with care, so that crop roots be not disturbed, does much good as well as rendering the soil porous, loose, and neat.

Bulbs for Forcing. — The preference for first planting should be given to the naturally early-flowering Roman and Italian Hyacinths, Duc van Thol Tulips, and Paper-white Polyanthus Narcissi. Regarding the best soil in which to grow bulbs, it must be admitted that very good soil is really wasted on bulbous plants. Generally speaking, every bulb has within itself all that is necessary for the production of perfect leaves and flowers, and the only absolute necessity, given light and air, appears to be moisture.

A good proof of this can be very commonly seen in the case of those Hyacinths which are grown in glasses with pure water. The question of supplying the bulbs with nourishment in order that they may not be exhausted so as to affect the next season's growth, does not enter into the business of bulb forcing at all. Bulbs grown in heat are so weakened by the process that they are, practically speaking, only fit to be thrown away afterwards, or at the most planted in some odd corner of the garden. Common garden soil, providing that it is not too heavy and that it is a little "gritty," will suit almost all the ordinary kinds of bulbs admirably. The question now arises, what is

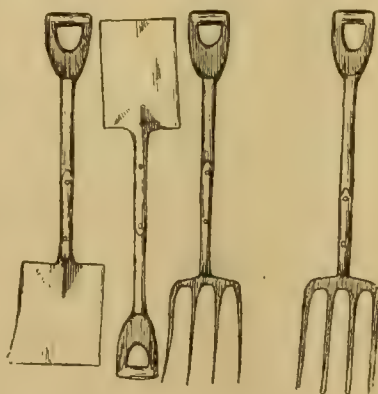
The Most Suitable Receptacle in which to plant the bulbs? There is nothing better for this purpose than shallow wooden boxes about 4 inches deep. For stronger rooting kinds, such as Hyacinths or Narcissi, the writer always endeavours to secure larger and stronger boxes. It is a much more troublesome business planting bulbs in pots, for one can plant a dozen

them. The crowns of all bulbs should stand up well above the surrounding soil.

Bulbs in Boxes. — It is now necessary to prepare the place on which the boxes may stand during the time which will have to be allowed for the bulbs to become thoroughly rooted. A level piece of ground in some corner of the garden should be selected, the size being according to the requirements. It is important that the position should be free from any dripping of water, either from trees or gutters, as this is liable seriously to damage the bulbs. On the other hand, the place should be sufficiently in the open to benefit from the rain. The ground should be strewn with ashes to the depth of an inch or so, or if it is difficult to obtain these, pieces of wood may be placed on the surface to form a base for the boxes to stand on. The only objection to the use of wood is that with the large amount of moisture which is continually soaking through, it soon becomes sodden and eventually starts to rot. The bed is now ready to receive the boxes of bulbs, and when these have been put into their places, moist cocoa fibre should be spread over the whole to the depth of about 6 inches. This material should be liberally applied so as completely to envelop the boxes on all sides.

Watering. — It is very important at this stage that the soil in the boxes should not be allowed to become at all dry. The only safeguard lies in periodically examining the soil in each box by gently pressing the fibre aside from a corner where there is no danger of damaging the bulbs. If the mould is found to be at all dry, a watering-pot with a coarse rose attached, should be used to deluge the fibre with water. It should be definitely ascertained that the moisture really does penetrate to the boxes which is not such a simple matter as might be imagined, cocoa fibre being very absorbent.

Forcing the Bulbs. — It is difficult to give any exact directions as to the length of time which should be allowed for the bulbs to become thoroughly rooted; and until they are well rooted the idea of commencing forcing operations must not be entertained for a moment. If the weather conditions in the autumn be mild and rainy the bulbs will naturally grow far more quickly than if the season be fine with the clear skies which always mean low temperatures at night. However, it is not really hard to tell when the bulbs may be safely introduced into heat, for bulbs in soil never start to make much of a top growth until they have rooted pretty freely. Thus the state of the roots can be easily guessed at, for a bulb that is sending up a good strong shoot is almost certainly well rooted. Tulips very often take a long time before they start growth, and then they seem to come on



GARDEN TOOLS.

(From right to left: 1. Broad-tined steel digging fork. 2. Narrow-tined steel fork. 3. Spade. 4. Shovel. The broad-tined fork is the best for digging; the narrow-tined fork is more useful for removing manure, &c.)

bulbs in a box in the same time that it would take to put three in a pot. This saving of time is matter worth consideration when one is dealing with several hundred bulbs single handed. Lastly, boxes do not part with the moisture so readily as do pots, and this is a very important point when the plants are being forced in great heat. The bulbs, the soil, and the boxes being ready, there is no reason why the planting should be any longer delayed.

Roman Hyacinths. — It is proposed to plant a box of Roman Hyacinths. A suitable box, in the bottom of which a thin layer of moss may be strewn, is half filled with soil. The bulbs are then placed in their positions, which, in the present instance of Roman Hyacinths, will be about 3 inches apart from crown to crown. The second half of the soil is now shaken into the box, every bulb being well pressed into its place; the crown of the bulb should just be slightly above the level of the edge of the box. The method of procedure is very similar in the case of the other kinds of bulbs, with the exception that such small subjects as Tulips do not, of course, require to be planted so far apart, and in the case of very large Hyacinths it would be advisable to allow a little more space between



GARDEN TOOLS.

(Rake and draw hoe with long handles, digging spade, and narrow-tined fork.)

all at once. It is well to bear in mind that it is far better to allow the bulbs a fortnight longer than is really necessary than a fortnight too little. "More haste, less speed" is a very pertinent maxim for the bulb forcer. A few actual instances may be of interest. Roman Hyacinths and Paper-white Narcissi, if planted early in September, should be ready for bringing into heat about two and a-half to three months later, say the middle of November. Duc Van Thol Tulips may be brought in a little later, but it is not advisable to start a large number of these at this early season, as, although they can just be induced to flower, they are poor-looking objects, being almost stalkless. The majority should be reserved for flowering about Christmas and in the New Year. The later flowering Hyacinths and Tulips should not be started in heat until about ten days before Christmas. These with the turn of the year will come on very rapidly into bloom. About the same time, and onwards until the New Year, most of the Narcissi may be brought in. Of these, the sweetly-scented Jonquils should have the first consideration. Great care should be exercised when removing the boxes of bulbs from the rooting bed that the easily-broken shoots are not damaged. The cocoa fibre having been carefully shaken away the boxes are ready for removal to the greenhouse. For the first day or so a place should be found for them under the staging away from the full glare of the light. As soon as the yellow shoots change to the more natural green the bulbs may be brought into their flowering position. Regarding the requirements of bulbs being forced into bloom in a greenhouse, it is important that the heat should be regularly maintained. Practically speaking, nothing in the way of warmth can be expected from the sun at this season of the year, and the grower must be prepared to keep his furnace, or whatever the source of his heat may be, going night and day. The temperature of the house should not fall below 50 degrees, although anything in the nature of a fiery heat must be avoided. This is particularly harmful to all the Narcissi when in an advanced state, for just before the bulbs split open, the developing flowers are very easily scorched up and of course ruined. If the house be only heated with an oil apparatus, or if the heat seems to be insufficient to keep the temperature well up throughout the whole place, it may be necessary in cold weather to group the boxes of bulbs around the source of warmth. Forcing that is intermittent is worse than no forcing at all, and every effort must be used to keep the bulbs in a warm situation continuously. If the supply of warmth is kept up it is surprising how very rapidly the plants will come into bloom. As far as possible a moist atmosphere should be maintained, and damping down should be resorted to. Great attention, too, must be given to the watering of the bulbs, as they will become dry very quickly. It is not safe to rely on the mere appearance of the soil, which often enough will look quite moist when it is really dry underneath. All bulbs take up a good deal of water, more especially so when they are growing rapidly, and shortness of moisture will seriously hamper the development of the plants. The wise grower will not bring more than a few boxes of bulbs in at one time, and by so doing periodically will make provision for a useful succession of blossoms. It may seem absurd to give instructions regarding the cutting of flowers, but there is one little hint in connexion with forced Tulip blooms which may not be unacceptable. Under the best of conditions, Tulips grown in heat in the winter are more often than not ridiculously short stalked. If when gathering Tulips the whole shoot be grasped just above the top of the bulb, a firm pull will draw the portion of stalk which is inside the bulb right away; this will add a valuable inch or more to the stem.—S. L. B.

Covering Figs in Winter.—Away from the South Coast the Fig is not absolutely hardy. The

trees may pass through an ordinary winter without injury, but when the thermometer falls below 10° the young wood, if unprotected, is often injured, and the next season the trees are fruitless. Thin all the branches now or before severe frost comes. Draw them together and cover with Spruce branches or mats, and mulch the roots round the main stems with long litter. Remove the coverings when the weather is settled in March. Some of the covering may be removed a little earlier to permit the air to circulate, the trees to be pruned when the last of the covering has been removed by the end of the month. The object of the pruner should be to secure plenty of short-jointed young wood, which should be trained in thinly. To obtain this it is necessary sometimes to cut away from time to time a few of the older branches.

Why Figs Fail to Bear Freely is due to deep rooting in damp, badly-made borders. Scarcely any fruit trees are easier managed. In Sussex, if the growth is kept thin, a crop is certain; but away from the sea in the Midlands it is necessary to keep control of the roots. Figs are strong rooting trees, and if planted in damp borders and permitted to grow unchecked the wood fails to ripen and there is no fruit, or if fruits show in spring they fall off.

GARDENING OF THE WEEK.

FLOWER GARDEN.

WILD GARDENS.—Bamboos being prominent objects in the majority of informal or so-called wild gardens, it is regrettable that no reasonable hope can now be entertained that those which have flowered so freely the past summer will ever recover or regain their previous vigour, so that there is nothing more to be done but to grub them up. B. Simonsii and Henonis are the only Bamboos that have so far succumbed here, but the uncertainty of the blooming and death of others is embarrassing, as one cannot anticipate when and where the next gap will occur. Having planted these—the former especially—extensively in many positions, they are much missed, for we had splendid groups and specimens, and the beauty and gracefulness of the latter will be difficult to replace. I fear there is nothing to do but to raise fresh stock from seeds, and plant again when fit, with the prospect of their thriving for about another thirty years, then to flower and die, as now. Even so, they repay the trouble and loss. In the meantime the gaps have to be filled up, and many sites worthily occupied with Bamboos up to this year are eminently adapted for growing vigorous free-blooming garden.

ROSES in an informal way, which would be a pleasing change. Cultivate the ground thoroughly, and apply well-rotted manure in abundance, incorporating it with the soil to a depth of 2 feet if possible. It must be borne in mind that the Bamboos have impoverished the land to a serious extent. Plant ramblers and creeping Roses freely, and also Chinas and bedders, according to space available, so as to produce pillars, fountains, festoons, and sheets of exquisite bloom, such as will prove pleasing features, and counteract and dispel to some extent the sad memories of departed Bamboos. Other occupants of these semi-wild places in a garden should be attended to. Cut down the withered stems of vigorous plants, and fork out the surrounding weeds. Top-dress with rich soil where necessary and mulch with farmyard manure, or should manure not be available the sweepings of lawns, leaves, and the composite mixtures which collect during a season—which have been turned over a few times—may be utilised for this purpose with advantage. Spread light litter or Bracken over crowns liable to injury from severe frosts and snow, and anything above ground that is not proof against north-easterly winds should be protected with temporary screens as advised in a recent calendar. I find Bamboos with the branchlets left untrimmed work up well and form a good wind-break. Carry out any contemplated alterations as early as possible, so as not to injure bulbs, &c., by trampling on them, for they will push through the ground before long, and for the same reason all leaves, rough grass, and litter should be raked up without further delay.

WALL CLIMBERS must be gone over and the shoots secured to their supports to withstand the winter storms. Pruning for the most part should stand over until the spring, merely thinning out crowded growths at the present. Anything of doubtful hardiness should be protected. Silver Fir or Spruce branches worked in thinly among the shoots, or tied over, answer the purpose fairly well, admitting a fair amount of light and air, thus dispelling moisture—stagnant or otherwise—more quickly than when closer protecting materials are employed. Excessive moisture during winter is disastrous to many plants. Brush and roll lawns frequently at this season

unless actually frozen, for worm casts and decaying leaves are unsightly. J. ROBERTS.

The Gardens, Tan-y-bwlch, North Wales.

INDOOR GARDEN.

CHRYSANTHEMUMS.—Cut down the plants as the flowers fade, and replace with later varieties coming into flower. Pick off yellow leaves and remove damp petals, as this makes a wonderful difference in the look of the plants. Thin out the cuttings if freely produced to prevent a drawn and weakly growth.

EPIPHYLLUMS.—Plants coming into flower must be kept dry overhead. In a temperature of 50° minimum by night rising to 55° maximum by day they will last a long time in beauty. There are ten or twelve varieties of E. truncatum all worth growing. Good drainage is necessary to keep the plants in health. E. Gaetneri can still be kept moderately dry at the root, as it does not flower till spring.

LILIUM LONGIFLORUM.—Pot up the bulbs as they come to hand in a compost mainly composed of good fibrous loam, with a little leaf-mould and sand. For early work it is better to pot them up singly in 6-inch or 7-inch pots according to the size of the bulb, as when forced they often start into growth very irregularly. For the general batch three or more, if required, may be grown in a pot. Plenty of room must be left for top-dressing later on. Stand a few on the floor of an intermediate house, the remainder can be placed in a cold frame and covered with Cocoanut fibre refuse till root action and growth begin.

CARNATIONS.—The introduction of the long-stemmed American varieties has given a new impetus to Carnation growing. By rooting batches of cuttings at different periods it is easy to get them in flower throughout the year. Cuttings preferably with a heel inserted round the sides of small pots filled with sandy soil root readily under a bell-glass or hand-light in a house with a temperature about 60°. The new variety White Mrs. Lawson promises to be the best white so far on the market.

GARDENIAS.—Cuttings can be inserted now for flowering in late summer and autumn. The best place in which to root them is a propagating frame with a bottom-heat of 80° to 85°. Better flowers are to be obtained from young vigorous plants. It is, therefore, advisable to throw away a few of the older plants annually. Syringe the plant showing buds with tepid water, and mix a little insecticide with it once or twice a week to keep down insects.

FERNS.—Growth on these being practically completed less water will be necessary, especially on the stages and floors where they are growing. Avoid using more fire-heat than is absolutely necessary. The deciduous species having lost all their foliage will require little water. Introduce a few Adiantum cuneatum into heat. These are always useful either for cutting or furnishing.

ROMAN HYACINTHS.—In a warm house these are pushing up the flowering spikes. Plants growing in boxes to be used for conservatory decoration must be potted up carefully. Well soak them with water, both before lifting from the boxes and after they are potted.

CLIVIA MINIATA.—Top-dress a few plants with well-decayed cow manure, and place them in an intermediate house.

VIOLETS.—The recent spell of wet weather has caused considerable damping. Remove all affected parts. A top-dressing of Cocoanut fibre will be beneficial.

Royal Botanic Gardens, Kew.

A. OSBORN.

FRUIT GARDEN.

PINES.—From now till the days begin to lengthen these will need great care and thought. High temperatures during cold, frosty weather must be avoided. There is nothing so detrimental to the future welfare of the plants as this. Some kind of covering should be adopted for the roof-lights on cold nights. This will do much towards keeping a steady, comfortable temperature without having recourse to hard firing. Watering, too, must be done with a little extra care during the dull winter months. The plants nearest the hot-water pipes should be examined twice a week. The water used for watering and damping should be about the same temperature as the house. Plants which are swelling their fruits should have a temperature a few degrees higher than the rest. Encourage a moist, growing atmosphere by frequently damping the walls and paths of the house, especially during spells of warm sunny weather. An effort should be made to have a few ripe fruits for Christmas. If it should be necessary to hasten them by increasing the temperature, they should be placed in a house by themselves, so as not to interfere with later plants. A house must now be made ready for receiving the earliest batch of Queens which are to supply ripe fruits during early summer. Endeavour to have a few ripe as early in June as possible, as then the supply of fresh fruit is very limited and the demand unusually great. When arranging the plants, therefore, in the house select a few of the most promising—that is, those having thick collars and open centres—and plunge them in the warmest part of the house, or, better still, if a small house can be devoted to them, where a high temperature both top and bottom can be kept, they will quickly throw up their fruits. Successional plants and suckers should have a temperature of 60° or 65°, according to outside conditions. A bottom-heat of 70° to 75° will be sufficient to keep the roots slightly active. It is important to give the plants the full benefit of all the light possible, so that it will be necessary to wash the roof-glass occasionally, especially so if black fogs prevail.

POT VINES.—The temperature of the house which was closed at the beginning of last month should be gradually increased; 55° to 60° by day, and 5° less at night, will be suitable. Syringe the canes morning and afternoon during

sunny weather, but avoid too much moisture when the weather is dull and cold, as this will encourage a stagnant atmosphere now that there is insufficient fire-heat to counteract it. Examine the pots carefully before applying water, which should be slightly warmed. Should the fermenting material decline below 70°, mix a little fresh litter with it. The temperature of the early permanent house may be increased 2° or 3° every week. The general treatment will be much the same as for pot Vines. Before tying the rods permanently to the wires they should be again thoroughly washed with a solution of soft soap and sulphur.

E. HARRISS.

Fruit Department, Royal Gardens, Windsor.

ORCHIDS.

PLATYCLINIS UNCATA is now in bloom in the intermediate house. Its graceful, thread-like racemes are similar to those of the well-known *P. filiformis*, but the flowers are of a greener shade and individually smaller. The plant is of dwarf, compact growth, and carries its pendulous crowded racemes of flowers well above the foliage; it would make a pretty table plant. After the flowers have faded the plant may be repotted if necessary, and it may be grown either in a basket or well-drained shallow pan, the latter being preferable. In potting place a few crocks at the bottom, over these a thin layer of moss, and use a compost consisting of equal parts of fibrous peat, leaf-soil, and sphagnum moss, mixing a little silver sand with it. The plant should be raised a trifle above the rim of the pan, and the compost pressed moderately firm about the roots. It should be suspended well up to the roof glass of the house, and be kept fairly moist at the root until growth is completed. The same cultural remarks apply also to *P. cobbiana*, which is also now in bloom. *P. filiformis* and *P. plumacea* are now at rest, but the plants should not be allowed to become too dry, as the leaves are apt to become yellow and fall off. On all bright mornings our plants are well syringed under the leaves, which greatly assists to keep the plants in good health, also to check the increase of red spider. Although natives of the Philippine Islands, these *Platyclinis* thrive well in an intermediate temperature the whole year round. During the winter months

PLENTY OF LIGHT IS NECESSARY for the well-being of Orchids generally, and now that the leaves have fallen from the large deciduous trees with which we are surrounded, we make it an annual practice thoroughly to wash all the houses both inside and out; but in the neighbourhood of large towns, where the atmosphere is charged with smoke, &c., the houses will require cleaning more often, especially on the outside. The stages and wood-work should also be cleaned, and the walls scrubbed and rewhitened with limewash. A white, clean surface increases the light in the houses. Wash the pots, and previous to rearranging the plants examine each one for insects, and sponge the leaves with clear, tepid rain water. If scale insects abound a weak insecticide wash will assist to eradicate them.

SLUGS AND SMALL SNAILS.—Whilst going through the plants in the cool house each should be thoroughly examined for slugs and small snails, which are nearly always present in the sphagnum moss, and where the flower-spikes, especially the rare and valuable varieties, are seen pushing up a piece of rough wadding should be wrapped around them, over which it is difficult for slugs to pass. The majority of the

ODONTOGLOSSUMS are in full growth, and when rearranging the plants it will be noticed that at the base of

many of the young breaks there is a brown-coloured outer sheath, which frequently clasps the growths so tightly that the roots are unable to penetrate into the compost, and they often come up inside the sheath into the air and make no further progress. To avoid this the sheath should be carefully slit in several places and pulled off in small pieces. Plants of *Miltonia vexillaria* in growth will require similar attention.

WINTER TEMPERATURES.—It has now become necessary to use a considerable amount of artificial heat to maintain the proper temperatures in the houses, and Orchid growers are usually well aware than an excess of fire-heat is frequently the cause of the deterioration of the plants. A harsh, dry temperature is often the cause of a number of leaves turning yellow, and it also encourages the increase of red spider, which will soon disfigure every plant it settles upon. In houses where, through an inadequate amount of piping, the proper temperatures cannot be maintained without making the pipes unduly hot, the effect of this may be overcome by lowering the temperatures a few degrees, especially at night, the admission of fresh air, and by using a little extra water when damping the paths. During very cold weather we roll some garden mats along the eaves or lower part of the roof, which is the coldest part of the house. These are put on at night and taken off again at daylight the next morning. These mats should be secured in rough windy weather, and if during the night they become wet or frozen, they should be thawed and dried before using again. The fire-heat in the cool houses should be kept as low as possible, and in order to do so on very cold nights we pull down the lattice-wood blinds over the garden mats. The night temperatures for December, with a range of 10°, within the limits of which is a safe guide, according to the conditions outside, should be as follows: East Indian house, 60° to 70°; Cattleya, 55° to 65°; Mexican and intermediate houses the same; cool house, 45° to 55°.

Burford Gardens, Dorking.

W. H. WHITE.

KITCHEN GARDEN.

STORING ROOTS.—In favoured localities where roots are still in the ground they should now be lifted, as it is risky to leave them there any longer. Beetroot will not stand much frost, accordingly the sooner it is stored the better. Carrots should receive similar treatment, except very late sown ones, that are being gathered as occasion requires. These will be all the better for being protected with some stable litter or leaves. Ashes answer the purpose very well; but some soils are better without them, therefore unless the Carrot plot is to be benefited by ashes use litter. Parsnips are quite safe in the ground as regards frost, only in the immediate prospect of very severe weather they will be all the better for a covering, so that they can be conveniently taken out of the soil when wanted. Chicory.—The best place for this root is again in the ground until wanted for blanching purposes, it may also have some covering similar to that recommended for the Parsnip. Quantities of Chicory roots may be lifted according to the demand and planted in the Mushroom house, or some such dark place where some warmth is forthcoming, so that the crowns of the roots may push out their leaves, which, if well managed, will be of a creamy white colour, and very crisp and tender. Failing a Mushroom house or other structure, the Chicory is very easily blanched if planted in flower-pots that will conveniently hold the roots. Three roots should be planted in a 6-inch or 8-inch pot, using sand or light earth for placing about them. When planted give them a good soaking of tepid

water, then choose pots having drainage holes of the same bore as those containing the roots, close the holes, and invert the empty pots over the others. They may be stored underneath the staging of a greenhouse or any place where plants are growing so long as they are kept dark.

SEAKALE.—Now that there are such quantities of fallen leaves about, some should be taken to cover up crowns of Seakale on the plot where they are growing. If the work is properly performed, very good dishes of Seakale may be gathered at an early date next year. One thing, however, must be borne in mind. There must be a liberal amount used before any warmth can be expected, and without this there will be little or no growth until the growing season again comes round. After some bottomless boxes or barrels have been placed over the required number of Seakale crowns, cover these to the depth of 2 feet or 3 feet, and of course the whole space between should be completely filled up so that it may resemble one large mound, the outside of which had better be built and all made fairly firm. If large stakes are fixed somewhere near the boxes or barrels there will then be no difficulty in finding the portable coverings that are on the tops when examining their progress or gathering the produce.

RHUBARB may be treated exactly the same as Seakale, only warmth will be obtained more quickly by mixing some stable litter amongst the leaves when covering the roots. Some litter will be necessary if either Seakale or Rhubarb is wanted at the earliest possible date.

J. JEFFREY.

The Gardens, St. Mary's Isle, Kirkcudbright.

THE FRUIT GARDEN.

THE PINE-APPLE NECTARINE.

THE season of the year is approaching when lovers of fruit and fruit-growers generally will be turning their attention to the question of planting fruit trees, and before doing so will be naturally anxiously looking out for the best varieties of the respective kinds of fruit they may wish to plant. To the amateur or one of limited knowledge of the character and merits of the bewildering varieties grown and recommended in many catalogues a friendly lead as to which are the best often proves serviceable.

The Nectarine is possibly amongst the most popular of all fruits, but there are Nectarines and Nectarines, as there are Pears and Pears, and Apples and Apples. Some are distinguished for their large size and beautiful colouring, others by the colour and quality of their flesh, ranging from white to green, and from yellow to orange. Others are distinguished by the texture of their flesh, whether firm or melting. With regard to flavour, many of our best growers contend that those having yellow or orange-coloured flesh are distinctly richer and better flavoured. I am of that number.

Of the yellow-fleshed varieties the following are amongst the best: Humboldt, Hunt's Tawny, Pitmaston Orange, and Pine-apple. The latter is a seedling from Pitmaston Orange, and I think it is decidedly the best of them. Anyone who has had the pleasure of tasting a well-grown Pine-apple Nectarine, perfectly ripened, with the skin partly shrivelled round the stem depression, will not easily forget the rich and exquisite flavour which it possesses. It is a late mid-season variety. If grown under glass it should not be planted in an early Peach house, but among mid-season or late sorts. It is not so strong growing as some, but I have always found it an excellent cropper. The fruit is of medium size, the colour of



THE PINE-APPLE NECTARINE (Reduced.)

the skin being orange with dark crimson on the sunny side. It succeeds well out of doors if planted in a well-prepared border against a sunny south wall.

OWEN THOMAS.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, W.C. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

Legal Points.—We are prepared to answer questions of law which have anything to do with the subject of gardening and forestry. The questions should be as clear and explicit as possible, so that there can be no doubt as to the point of the question. Answers will be found in a separate column headed "Legal Points."

FLOWER GARDEN.

SELECTION OF FLOWERS (J. Hadley).—Rose Mme. Abel Chatenay, full, medium size, pale fawn pink, shaded salmon, a fine garden Rose. Three Geraniums with brilliant colouring in leaves: Mr. Henry Cox, Macbeth, and Lass o' Gowrie. Best Geraniums for bloom. Single zonals: Lord Hope-town, scarlet; Mr. T. E. Green, yellowish orange; Lord Roberts, purple; and Mrs. Simpson, white, with a scarlet ring towards the centre. Double zonals: Turtle's Surprise, deep scarlet; Bertha de Presilly, silvery pink; and Double Jacoby, deep crimson. Six Fuchsias: Champion, very large flower, rosy purple corolla, red sepals; Gertrude Pearson, rich plum corolla; Lady Heytesbury, white tube and sepals, carmine corolla; Valiant, a self-coloured bright red flower; Swanley Yellow, orange and red; and De Goncourt, red sepals, white corolla. The above are all single, the following being double: Phenomenal, rich purple, and Duc d'Aumale, globular, white corolla. Six plants for pockets or nooks: Campanula Mayii, C. isophylla alba, white; Isolepis gracilis, Asparagus plumosus nanus, A. Sprengeri, Lotus peltorhynchus, Panicum variegatum, Pilea muscosa, Tradescantia albo-vittata, and T. zebrina.

NARCISSUS IN ROUGH GRASS (P. S.).—Your description of the soil, viz., "sandy loam," would be what is regarded as most suitable. Many of the Narcissus family, as the poeticus section and the common double yellow Daffodil, prefer a cool rooting medium and even moisture. The common Lent Lily (N. pseudo-Narcissus) also prefers moisture. N. princeps and the old double yellow often fail on chalk sub-soil. Another frequent cause of failure is that the turf becomes hard. Generally speaking, in sandy loam we would plant without hesitation N. princeps, N. poeticus ornatus, N. Telamonius pl. (old double yellow), and any of the single N. incomparabilis vars. as Stella, Cynosure, Frank Miles, Sir Watkin, and many more. The single incomparabilis kinds possess additional value by reason of their stature, and these are especially good in grass and cheap. Horsfieldi and Leedsii are both excellent. Some kinds are so prone to basal disease that thousands may vanish in a year or two. The remedy is to avoid these in future. Perhaps the subsoil is at fault. If so, we suggest that you open out a few irregular plots, fork up the soil 1 foot deep, work in some cow manure at 9 inches deep, and dibble the bulbs in not more than 4 inches deep. In

replacing the turf quite a third should be discarded, and what is laid down will be best broken up.

EOMECON CHIONANTHA (Charles Prentis).—This Chinese plant is somewhat fastidious in its requirements, and in many gardens it refuses to flower at all. It usually grows freely enough in almost any situation, but few flowers are produced, and the only way to succeed with this plant is to keep on trying fresh situations, for what will suit it in one garden will not answer in another. By this means a place may eventually be found to suit it, and more flowers will be produced. A partially shady spot is essential, for preference facing north-east, and it should be planted in a mixture of loam, leaf-soil, and sand, with which should be mixed a quantity of good-sized pieces of sandstone. The roots like to run amongst and underneath stones where they are kept cool, but at the same time it requires plenty of moisture to keep it going. Eomecon chionantha is a native of the province of Kwangsi to the westward of Canton, and is usually found growing on the banks of rivers.

C. W. C.—The Carnations are badly attacked by "spot," which generally attacks Carnations in the autumn owing to the moist atmosphere. The worst-attacked leaves should be removed; and if the plants could be taken from the frame and placed on a shelf in a dry greenhouse they would not get any worse, and they would grow out of it in the spring; nothing else can be done.

J. F.—*Marchantia polymorpha* belongs to one of the lower orders of plant life called the Liverworts. It is closely allied to the Mosses and Equisetums or Mare's tails, and does not bear flowers. It is reproduced by spores, borne on the under side of flat discs on slender stalks, or by means of gemmae, or little bulbils formed at the base of cup-like receptacles which may be found at certain times of the year scattered over the surface of the plant. These gemmae are produced more freely in the autumn, and have the power of lying dormant for a considerable time, when they will germinate under favourable conditions.

Lima.—There must be something wrong with the position or soil in which the Asters are planted, as A. Amellus usually flowers freely. The specimen sent appeared healthy. The Italian Starwort grows naturally on the open hills of Italy and other parts of South Europe, while you evidently have yours planted in a somewhat shady position. Select an open sunny situation and carefully transplant after digging the soil deeply, and if of poor quality work in some fresh loam and leaf-soil or even well-decayed manure. Wireworms are often a cause of failure with this plant. Spring is the best time for moving Asters off altogether.

B.—The flowering of *Incarvillea Delavayi* may be prolonged if the plant be slightly protected from midday sun. The plant is quite hardy and a true perennial, and the cause of the foliage dying off so early may be due to the plant not being as yet fully established. The plant, however, does take a long season of rest, and always appears quite late in spring. Another season, in case of exceptional drought, a thorough soaking of water should be given now and again. You might cover the plant with Cocoon fibre or very short litter for this winter. The seedlings may remain in the box for the winter, keeping quite dry when the foliage has disappeared. Early in March plant them permanently and they should flower in 1907.

M. F. Sanders.—*Pyrethrum uliginosum* seems to be peculiarly liable to malformation, which occurs more frequently when there is an excess of moisture, whilst when growing in a well-drained position the tendency to produce fasciated stems and flowers is not so marked. There is no definite remedy, as the malformed growths are produced more frequently in some seasons than in others. It would be advisable to lift the clumps and divide them, either now or in the spring, afterwards planting them in fresh places in the border. With respect to the cutting of the bark of young trees to the extent you mention it is certainly injurious, and should not be persisted in. To encourage the trees to grow a circle 4 feet to 5 feet in diameter should be kept clear of weeds and grass around the stem of each tree.

RENOVATING WISTARIA (Sybil).—It is a difficult matter to renovate very old and gnarled Wistarias. As you say, it would be almost impossible to cut away much of the old wood without cutting down the tree. The only thing to be done is to try and do something for the roots, and even this is not an easy matter, for one hardly knows where the roots may be. The best thing to do is to dig a trench at a safe distance from the stem, so as not to damage the main roots. You are best able to judge how far away this should be. Then a man standing in the trench should work towards the stem and fork away the old soil until he comes to plenty of good roots. Take away the old soil and replace with fresh turfy soil, enriched with manure. Replace the roots very carefully and make firm again. In the spring remove several inches of the surface soil and top-dress with fresh rich soil. Water copiously in summer and autumn.

TREES AND SHRUBS.

RHODODENDRONS UNSATISFACTORY (Rena).—The sooty appearance on your Rhododendron leaves is caused by a fungus popularly known as the black or sooty mould, the name of which is *Capnodium Footii*. Syringing with a solution of permanganate of potash, which is generally known as Condy's Fluid, would in all probability destroy it. The crystals of permanganate of potash can be bought at a cheap rate, and they readily dissolve in water. The strength used should be sufficient to colour the water a bright magenta-pink. On two of the leaves sent were patches of one of the many forms of the rust fungus, which should also yield to the same treatment. Should it, however, prove not sufficiently effectual, the plants may be syringed with a solution of potassium sulphide. Syringing about twice a week with it during mild weather should rid you of the trouble. At the same time, judging by the general appearance of the leaves, we cannot help thinking that your Rhododendrons have fallen into a very poor state at the roots. The two leaves with the rusty red substance underneath are perfectly healthy, as many garden varieties of Rhododendron possess this feature. In some of the Himalayan species this is so pronounced as to form quite a dense rusty felt on the undersides of the leaves.

B. C. J.—You do not give us any idea of the height to which you wish to limit your hedge, but in trimming a hedge up to 6 feet in height the sides, if you wish it, may be cut perfectly straight, but above that height the sides should be gradually sloped inward, from the base to the top, so that the top is about two-thirds the width of the bottom. This tends to keep the base of the hedge well furnished by admitting more light thereto than if cut with a straight face. The best time to clip a Yew hedge is in the spring, while in good seasons it is all the better for being gone over again during the latter half of August. On this occasion, however, only the long growths should be cut back, the close trimming being reserved till the spring months.

W. B. Welles.—Different varietal names have been applied to slight forms of the Cornish Moor Heath (*Erica vagans*), but the true varieties are few. The true *Erica vagans* is indistinguishable from the so-called varieties *carnea* and *rosea*. In addition to this there is the variety *alba*, whose blossoms are almost white, and *rubra*, in which they are of a deeper red than those of the type. Besides *Erica vagans*, and its two well-marked varieties, there is a nearly allied species, *Erica multiflora*, a native of Southern France and neighbouring districts along the Mediterranean shores. This differs from the Cornish Heath in its more compact growth and shorter racemes of flowers. The blossoms are somewhat paler in tint than those of *E. vagans*.

THE GREENHOUSE.

TUBEROSES (Onward).—The form most generally cultivated is the Pearl Tuberose, received here in January. They will, in a fairly dry spot where quite safe from frost, keep fresh for some time after this, although for early forcing the bulbs should be potted as soon as received. With but a greenhouse for their culture, the first half of March is early enough to pot the bulbs. In the case of good bulbs, one may be put in a pot 5 inches in diameter, or three in a 6-inch pot. Bury the bulb to the neck in the soil, which must be pressed down firmly. Before potting, any offsets that may be on the bulbs must be removed, as they push up only leaves. If the bulbs when potted are placed in the greenhouse and moderately watered, leaves, and afterwards the flower-spikes, will be produced; then give more water. While growing a good light position in the greenhouse must be given them, otherwise the stems will grow up weak and flower badly. It is useless to keep the bulbs over for a second year.

A Constant Reader.—We presume your Arums are grown in pots, in which case they should, in the middle of the summer, have been kept dry for about a month; then most of the leaves would turn yellow and die off. In the third week of July the corns should be turned out of their pots and shaken quite clear of the old soil, removing at the same time all the minor offsets. The corns must then be repotted in some good soil. According to the vigour of the corns, pots varying from 5 inches to 7 inches in diameter may be employed. After potting the plants may be placed out of doors, giving at first but little water,

then as the young leaves push up give more. In the middle of September bring them into the greenhouse, and give air whenever possible.

ROSE GARDEN.

MACARTNEY ROSE ON WEST WALL (Veld).—You have obtained a wrong description of the Macartney Rose Maria Leonidas. It is the double variety, the colour being white, with creamy blush shading in centre. It is a beautiful rose and well worth growing. We think, however, if you can only find room for one sort, that you should plant alba simplex. This is a gem, the large blossoms being quite single and snowy white, with a wealth of golden stamens. Its foliage is very neat and pretty, and almost evergreen in a climate where frosts do not injure it. This Rose would be a very handsome one to plant upon the wall of a conservatory. The variety Mme. Alfred Carrière would be the best to plant upon the 7-foot trunk. When the growths reach the top they will droop over and form beautiful objects wreathed with the fragrant creamy white flowers. You could also plant Mme. Plantier at the base of this tree, and allow it to mingle with the Mme. Alfred Carrière. As it is much earlier in flowering it would be a happy idea to plant the two together, and the Mme. Plantier may be kept low if desired. You must be careful to provide the Roses with a hole some 3 feet deep and about 2 feet wide, and should the soil be at all poor replace it with better material. All these fast-growing Roses should have a good root-run, then may one expect glorious specimens the picture of health.

Rev. G. Dangiban.—(1) Yes, prune the Rose towards the end of March. You might leave one shoot almost its full length, merely removing 2 inches or 3 inches of the unripened wood at the end; in the spring peg it down, and you will get blooms all along the arched shoot. Prune the other shoots back to within 6 inches to 12 inches of their bases, leaving the strongest the longest. This method will give you quantity; if you want the finest blooms cut the shoots back to within an inch or so of their bases. (2) Yes; when you plant the young climbing Roses cut them hard back to within, say, the two lowest beds.

Rose Beetle.—Basic slag is a splendid fertiliser to apply to the ground for Roses. In the case of established plants it should be applied to the surface soil in autumn at the rate of about 4oz. to 6oz. per square yard prior to the annual dressing of farmyard manure. Where the soil has to be trenched for Roses the basic slag should be mixed with the bottom spit at the rate of about 6oz. to 8oz. per square yard. By all means give the beds a dressing of lime to eradicate eel worms, &c., and instead of being injurious to the Roses it will be beneficial, but we should not recommend basic slag to be applied to such beds this season, or if you do it should be in a less quantity than advised above. It will not be advisable to apply either basic slag or lime to the surface soil where Roses have been recently planted.

New Beginner.—You have an opportunity of growing some lovely Roses upon the walls you describe. You should prepare the border first by double digging or trenching. The subsoil, being of a clayey nature, should be well forked up, and mix with it some gritty material, also some old mortar rubble. Manure, too, in moderation should be mixed with the soil as the trenching proceeds, taking care it is kept away from the roots of the Roses when planting. When the ground has been trenched about a week you can plant the Roses. Some good sorts for the high wall are Mme. Jules Graveraux, Climbing Mrs. W. J. Grant, Mme. Berard, Bouquet d'Or, François Crousse, Mme. Alfred Carrière, and Rêve d'Or. For the 6-foot wall: Mme. Abel Chateau, Mme. Charles Monnier, Grüss an Teplitz, Marie van Houtte, Anna Ollivier, Corallina, Frau Karl Druschki, and Billiard et Barré. For the west wall: William Allen Richardson, Waltham Climber No. 1, Dorothy Perkins, Mme. Jules Siegfried, and England's Glory.

FRUIT GARDEN.

PEACH AND FIG LEAVES UNHEALTHY (J. G. Wright).—The leaves you sent are very dirty and badly attacked by mealy bug, scale, and aphides. The house and trees must be thoroughly cleansed, for the trees are evidently extremely dirty. As soon as you can do so the trees should be turned out of doors, if they are in pots, so that the house may be cleaned. The best way to do this is to burn sulphur. This, however, must only be done when the house is perfectly empty. The fumes are poisonous to man and plants and insect life. Place several flower pots half filled with hot coke on the floor

and sprinkle a good handful of sulphur on each, having first tightly closed all ventilators. The next day scrub rafters, glass, and walls with soft soap and warm water, mixing a wineglassful of paraffin to each pailful of soapy water. If the trees are planted out you cannot of course burn sulphur in the house. You must tie the branches together and cover them up while the house is scrubbed with soft soap and paraffin. Then with the same mixture, or with one of the many good insecticides advertised, thoroughly clean the trees, sponging the leaves and brushing the branches. Then once a week for several weeks syringe the trees with the above mixture, and fumigate once a week for several weeks with XL All Vaporiser, obtainable from any horticultural dealer. These measures, if persisted in, ought to cleanse your trees.

MUSCAT GRAPES DISEASED (M. W.).—From your description and from the appearance of those sent we should say that neither the condition of the roots nor the culture can be far wrong. We are inclined to think that the spot is caused by the atmosphere of the house being too moist and too cold at night. On sunny days the house may appear dry enough, but if you will examine the inside of the roof of the vinery and the foliage of the Vines in the morning you will find them damp with condensed moisture, and on wet days and nights, of course, this condition is aggravated. On a dry, warm day no fire-heat is needed, but at night or in cold, damp weather in the day-time a little warmth in the pipes should be provided. As regards the roots of your Vines, we should advise you to satisfy yourself this autumn by opening a trench in the border at a safe distance from the Vines until you come to good roots. If you are satisfied with them the trench may be filled up with new turf and the Vines benefited. On the contrary, if you find many of the roots growing down into the subsoil, very carefully lift their extremities and place them in new soil not deeper than from 9 inches to 12 inches from the surface. They would suffer no check from this treatment, and would be benefited by it for many years to come.

Wilderness.—If Cox's Orange Pippin Apple cankers with you, as it does in some gardens, try Allington Pippin.

Ireland.—Either the trees suffer from want of water when the fruits are developing or the roots have got into an unhealthy soil. The latter is probably the case, and you should remove some of the present soil and replace with fresh. Dig a trench, say, 6 feet away from the stems if they are large trees, and fork away some of the old soil, working towards the stem. Take this away and put in fresh. If you find any thick roots cut them back, and any that are growing straight down should be cut also and placed in a horizontal direction. Replace all roots carefully, and make the soil firm about them.

KITCHEN GARDEN.

ONIONS FOR EXHIBITION (B. B.).—As you wish to grow Onions for exhibition you will need to give special culture. The soil, though an important factor, is not by any means the only one. To get show Onions it is useless to sow in February or March—the usual period. The giant bulbs you see staged at shows are not grown in a short time. The seed is sown in pans or boxes under glass in November or December. The seedlings are grown on, and pricked out into other boxes or frames in rich soil as soon as they are large enough to handle. By March or early April the seedlings are transferred to an open quarter, deeply dug and well enriched with manure, each seedling being carefully lifted with roots intact with some soil and planted in rows 18 inches apart, with 9 inches or more between each plant. During summer liquid manure fertilisers also are frequently given, the hoe is used freely, and by August there will be large show bulbs of the size required. Our best growers make a point of preparing the land at this date for their prize Onions, and turn it up roughly, so that the soil is well sweetened. Manure is given freely, according to requirements. We are not aware of the condition your soil is in. If at all poor, give thoroughly decayed animal manure in preference

to artificial foods, as the latter are more valuable when the plant is in active growth, and you have a wide selection. What is required is a quick-acting food and frequent dressings, say, weekly. Many growers depend largely upon liquid food when the crop is in growth; others prefer to mix their own fertilisers, but this is a small matter to getting an early plant. You see you must do this to secure a longer season's growth. Sow thinly, and transplant into rich soil in March, as advised above. This will secure you large bulbs. Any good variety grown thus is equal to the one you name. You have a good soil, good position, and with attention you should get good results.

CARROTS SPLITTING (J. L. V.).—From the appearance of the Carrots sent we think your land must be very stiff or clayey; if so, it is unsuitable for Carrots, and in such soil they split badly. Another evil that causes splitting in such soil is too early sowing, also sowing a large kind; far better sow two or three times a year, say, February, April, and July, and by so doing secure smaller roots with less hard core but more useful, as there is no waste, and the roots are all eatable. We have also seen roots suffer much like yours by being attacked in the summer months by the Carrot fly. This destroys the foliage, with the result that the roots, having no outlet for growth or expansion, split, and are like yours. You would in future years do well to make your soil lighter if heavy or wet by adding any charred refuse, road scrapings, or fine old mortar rubble, and not sow in the same spot as formerly. To prevent attacks from the fly sow an early variety with less hard core. Should fly be troublesome damp over in the evening with a weak paraffin solution.

VEGETABLE GARDEN (H. P., Tirol).—You have at the present time no other remedy than to turn the land up as roughly as possible. It would be well to double dig or trench, and this done, the soil would be thoroughly pulverised and sweetened, and ready for cropping in spring. The snow would be welcome if the land is laid up in rough trenches. The best way in future to dispose of your cesspool is to mix it with a good body of dry soil at the time it is emptied, and allow it to remain in a heap for twelve months. The material could be utilised in a shorter time if you used quicklime freely, and certainly we should advise it for the spring. The material would then be less offensive. You could possibly place your heap in an out-of-the-way corner. Your garden being snow-covered so long is a difficulty in the manuring, as there is so little time; indeed, if you could by any means place the contents of the cesspool on other land, and use your cow manure for next season, it would be better. There is a good way to help to weaken the sewage by mixing sand, wood ashes, and burnt refuse with it. A small useful book on vegetable culture by G. Wythes is published by Lane, Vigo Street, London, at 2s. 6d., and a larger and excellent work is "Gardening for Beginners," 12s. 6d. (Newnes).

S. Simpson.—Cucumber Every Day is an excellent variety for winter culture. Although the fruits are not so large as those of some varieties, they are produced continually. No Cucumber is more appropriately named.

Carlton.—You may grow Basil in pots during the winter months in the Cucumber houses. Keep it in as light a position as you can on shelves near the roof. By continually picking off the ends for use you will keep the plants sturdy.

Hortus.—You can grow excellent Mustard and Cress upon the floor of a vinery or Peach house that has been started. Place a thin layer of leaf-soil upon the border near the path (so that it may be easily cut), and sow half with Mustard and half with Cress. It will take rather longer to germinate this dull weather, but in spring it would be ready to cut in about ten days.

A. F.—To prevent a recurrence of club root in Cabbages burn all the decaying plants that were attacked, otherwise the spores will rest there during the winter, and in the next season will attack fresh plants. Another important point is to keep the ground clear of weeds which belong to the natural order cruciferae, of which the Shepherd's Purse and Charlock are common examples. This disease attacks these weeds freely; it also frequently attacks Turnips. Burn any cruciferous weeds on the land. An application of slaked lime at the rate of three tons per

acre after the crop is cleared will usually destroy the spores. Procure the best seeds. Do not grow a crop of any cruciferous plant on the same land for a year or two. Another crop, such as Onions, Beans, Peas, or Potatoes should be grown instead. This disease, which is caused by a fungus, is common among Brassicaceous plants, more especially Cabbages and Turnips. In some soils it is much worse than in others. It is important to have strong, healthy plants, which can only be done by obtaining good, pure seed.

AILSA CRAIG AND EXCELSIOR ONIONS (Query).—The question you put as to the priority in commerce of Ailsa Craig and Excelsior Onions is, we note, identical with the query recently put to a gardening contemporary, and in it replied to. Still further, the Editor asked for exact information on the subject, and none has been furnished. Would you mind saying what special object you may have in view in thus pressing this matter? To us it seems to be one of little moment, except that, if seed of Onion be purchased under one or other of the above names, and the product when grown is, as commonly results, that bulbs of both assumed forms are produced, there seems to be little benefit in raising the question. Evidently no one can furnish a satisfactory reply. In the southern part of the kingdom Ailsa Craig is shown as broad, deep bulbs, and Excelsior as narrower and more oval bulbs. We are content to know that under either name we have a very fine stock of Onions.

MISCELLANEOUS.

Rev. G. Dangeban.—First syringe the tree with warm water in which soft soap has been dissolved. You would then be able to brush a good deal of the scale off, as the wash would loosen it. Afterwards syringe with diluted Fir tree oil, obtainable from a nurseryman.

WIREWORMS (J. C. A.).—Failing gas-lime for destroying the wireworms, you may apply soot, salt, nitrate of soda, or sulphuric acid, all of which are more or less destructive to this pest. During the autumn, winter, and spring, while the ground is bare, stir the soil continually with a fork or spade. Many may be found and caught in this way. Wireworms are not very destructive in land that is being often disturbed. They usually abound in soil that is left uncultivated for some time. You may catch a good many by means of Potato traps. Place large slices of Potato or Carrot in the ground, with a short stick attached to show their whereabouts. Examine these every few days and destroy all wireworms found in them.

Gold Fish.—They thrive best in slightly warm water, in a cement tank open to sun and air. With a few water plants growing in it they increase very fast, but no other fish should be in the same tank, neither should they be fed with bits of bread, &c. They require no artificial feeding whatever. They feed on the slime which collects on the stems of the water plants, &c., the small flies which drop into the water, and very small insects, which are sure to breed in the water. If the fish are healthy beetles or frogs would have no chance of touching them. Snakes will sometimes clear out the whole lot, and water rats will at times take them. Kingfishers and herons, if they once sight a pond with gold fish in, soon make short work of them. A fresh water pond, providing it is in a sunny position and the water is not too cold, should be good for gold fish, and *Ranunculus aquaticus* makes a good shelter for them; but you should grow also the different sorts of *Sagittarias*, and if possible Water Lilies or any other aquatic plant you care for. The fish will find plenty of food in fresh pond water. It is a great mistake to feed them artificially.

MAKING WATER LILY TANKS (C. P. G.).—You will do well to make your sunk tank with brickwork. Get the ground out 2 feet 10 inches, make the soil at bottom very firm, then make a floor of bricks set in cement, and build up the sides and ends with a 4½-inch brick wall; this should also be built with cement mortar. When this is done and set give the bottom and sides a plastering about half an inch thick of three parts cement and one part good fine grit, then leave it to get thoroughly set. If this is done carefully there will be no fear of its leaking. If sloping sides are wanted form them in the tank with either old bricks and soil stacked in that position, or stones and soil will answer the same purpose; this will be far better than building sloping. If it is intended to surround the tank with grass, this can be brought right over the brick wall to meet the water, and all building will then be hid. Afterwards cover the bottom of the tank with 6 inches to 9 inches of good kitchen garden soil, but no manure. Do not plant your Nymphaeas till about the middle of April. A tank of this dimension would take about ten Nymphaeas, and if good sized plants they could be planted at once in their permanent position; but if small they are best potted up in Orchid pans and placed on a 9½-inch pot turned upside down in about the place they are afterwards to be sunk to remain. When they have made good growth take away the lower pot and sink the Orchid pot containing the Nymphaea right into the bottom mud. It will now take care of itself, and soon root through the holes in the Orchid pot.

NAMES OF PLANTS.—*A. B. M., Beadnell.*—*Begonia weltoniensis*—*John Martin.*—*Maxillaria grandiflora.*—*James Tizzard*—1, *Taxus baccata* (common Yew); 2, *Juniperus thurifera*; 3, *J. chinensis* mas; 4, *J. virginiana* (Red Cedar); 5, *J. chinensis* femina; 6, *Sequoia sempervirens* (Redwood Tree); 7, *Cryptomeria elegans*; 8, *Sequoia* (Wellingtonia) gigantea; 9, *Retinospora squarrosa.*—*Hollybank.*—*Oncidium varicosum* Rogersii.—*W. F. D.*—1, *Stanhopea* var.; 2, *Pleurothallis* var.—*Enquirer.*—The white flower is a hybrid Pompon named *Sour Melanie* and the yellow Pompon is *La Vogue*.

NAMES OF FRUIT.—*Number Ten.*—Apple King of the Pippins.—*Senex.*—Apple Flanders Pippin; Pear Maréchal de la Cour.—*F. S. H.*—1, Golden Spire (cooking); 2, Keswick Codlin Improved (cooking); 3, Barnack Beauty (dessert); 4, Brown Beurré (dessert); 5, Winter Nellis (dessert).—*T. W. S.*—1, Cox's Pomona; 2, Fearn's Pippin.—*Steeple.*—Kedleston Pippin.

THE EDITOR'S TABLE.

HARDY FLOWERS FROM DEVONSHIRE.

From Kingswear, South Devon, Mr. S. W. Fitzherbert sends a gathering of choice and beautiful flowers with this note: "I send you—gathered to-day (November 15) from the open garden, and quite unprotected—*Calceolaria Barbidgei*, *Cassia corymbosa*, *Arctotis aspera arborescens*, *A. aureola*, *Sollya heterophylla*, *Correa cardinalis*, *Salvia azurea grandiflora* syn. *Pitcheri*, *Convolvulus Cneorum*, and *Agathaea celestis*. Up to the present we have had no frost to hurt, and *Dahlia* foliage is quite uninjured."

WINTER FLOWERS FROM DONEGAL.

Writing as follows from Old Eden, Glenties, County Donegal, Mr. T. Cradock sends a remarkable collection of hardy flowers for this time of year: "I send you a box of flowers for your table, which, though not remarkable for quality, are, I think, fairly so for variety, comprising as they do the following annuals, perennials, &c., of such widely different dates of flowering: *Anagallis*, *Nemophila insignis* (this is still a mass of bloom), *Nicotiana affinis*, *N. Sanderæ*, *Mignonette*, *Sweet Peas*, *Doronicum*, *Delphinium nudicaule*, *Tropæolum tuberosum*, *Lupin*, *Roses*, *Michaelmas Daisies*, *Chrysanthemums*, *Schizostylis*, *Veronica*, *Escallonia*, *Fuchsia discolor*, *Primroses*, *Polyanthus*, and *Shamrock Pea*. Had the weather been dry enough a week ago I could have sent quite good *Cactus Dahlias*, *Blue Salvia*, and many others."

CHRYSANTHEMUMS OUT OF DOORS.

I am sending you a few flowers for your table, which I thought might be of interest to your readers. Grown from seed sown in the spring, the seedlings planted out at the end of April, they are now a mass of flower, most useful and light for table and other decoration. The plants are sturdy, entirely free from disease, and some of them carry over 100 sprays of flower. Taking into consideration the slight outlay entailed in growing them in this way, I think the result is most satisfactory. Part of them I have lifted and put in a quite cold orchard house, others are outside now, and though we have had 10° of frost they are as satisfactory as under glass.—*ARTHUR BUCKINGHAM, The Gardens, Blackhurst, Tunbridge Wells.*

NURSERY GARDENS.

CHRYSANTHEMUMS AT LEWISHAM AND KESTON.

WITH two establishments under his control, both of which are very largely devoted to Chrysanthemum culture, Mr. H. J. Jones has now a far better opportunity of studying the best interests of the flower than he had in the earlier days, well though this was done at that time. Keston, with its high elevation and pure air, is an ideal place in which to obtain flowers of high quality. The Lewisham collection has never looked better. Japanese varieties, as usual, predominate, and of these there are many grand seedling sorts, as well as others, that were distributed last spring. Specially good is *Algernon Davis*, recently certificated by the N.C.S. This is a large Japanese flower of drooping

form, and very full; colour, rich bronzy yellow shaded chestnut. The blooms are good on any bud, and the plant is of easy culture. E. J. Brooks, also certificated by the N.C.S., is another sort that has come to stay. It is very large and full, and may be described as a vastly improved *Pride of Madford*, with more plum colouring in the flower. A flower almost unknown, yet valuable to exhibitors, is *H. Stevens*. The bloom is large and massive, with broad, flat petals that stand out stiff and straight, building a deep specimen; colour, rosy pink on white ground. *Lady Lennard*, sent out by Mr. Jones last spring, is a beautiful, refined bloom of good substance. It belongs to the incurved Japanese section, with petals of medium width, the colour deep golden amber. The sport from *Mme. Paolo Radaelli*, named *Mme. G. Rivol*, is quite distinct, the colour being yellow, with ochre inside the broad petals. For the late shows this should be a great acquisition. *Marshal Oyama*, of which so much was written last season, is a good Japanese bloom, with strap-like petals. The colour is a golden amber, overlaid with chestnut, and the plant is dwarf and sturdy.

Of the deep crimson novelties, *Merstham Crimson* is a good representative. The colour is very deep and rich, and the petals are numerous and drooping, making a charming flower; dwarf growth. Another very handsome, rich glowing crimson flower is *Mrs. A. H. Lee*. It was sent out last spring, and has never failed, the numerous flowers of fine, drooping form seen on this occasion stamps the variety as one of the best of recent introductions.

In this connexion we may also mention *Mrs. T. Dalton*. Here, as elsewhere, good blooms were to be seen. The colour may be described as rich claret-crimson, and the blooms large and of deep build. *Miss Dorothy Oliver* is a dead white variety, and drooping. A flower that appealed to us was *Miss Nina Enoch*. *Miss Elsie Miller*, *Mrs. Eric Crossley*, *Mrs. R. E. Mason*, *Mrs. C. F. Boosey*, *Mrs. A. T. Miller*, *Oakland Belle*, *J. H. Doyle*, and *Donald McLeod* were magnificent. The foregoing are a few of the choicer Japanese varieties. Older sorts, such as *Bessie Godfrey*, *F. S. Vallis*, *Mrs. F. W. Vallis*, *Henry Perkins*, *General Hutton*, *Lady Mary Conyers*, *J. H. Silsbury*, *Mrs. J. Dunn*, and quite a host of standard sorts were each contributing to the display.

Incurved varieties are not increasing very rapidly, still Mr. Jones has some capital things to send out, each of which is quite new. A fine acquisition is *A. H. Hall*. This may be described as a large flower of neat form, and of a colour reminding one of the older *Refulgens*, although rather deeper than that fine old sort. It is a good type of flower with rounded ends to the petals. *C. J. Ellis* is another deeply-built incurved of good form, with fairly broad stout petals, and of a colour that recalls the once-popular incurved *John Salter*. Another acquisition is *J. W. Fuller*. It is a broader flower than *Charles H. Curtis*, and of fine finish. Also striking is *Maurice Sargent*. This variety has quite equalled expectations; the colour is pearly pink. Other new incurved sorts are *Ladywell*, deep lilac; *Mrs. A. H. Hall*, rich chocolate; *Premier*, silvery lake, and several others.

Anemones and Japanese *Anemones* are not forgotten in the rush for big blooms, neither are the smaller-flowered decorative and market Japanese *Chrysanthemums*. *Glory* is a gloriously rich yellow, and very freely flowered. *Money-maker* is a pure white Japanese reflexed of beautiful form, of which we shall hear much in the future, especially in the market. *Kathleen Thompson*, crimson, tipped gold, and two new pretty spidery sorts, named respectively *Jessie Madeline Cole* and *Bertie Bindon*. The former is a lovely rich canary yellow bloom 3 inches in diameter, and the latter a fluffy white of smaller size. Mr. Jones has one huge house filled with the most beautiful of single-flowered sorts. All

who have seen them have been struck with their beauty and refinement. In undisbudded or partially disbudded sprays they may be cut for decorative uses, for which purposes they are incomparable.

Some of the sprays form dense clusters, while others are dainty and elegant, yet each have its charm and use. Some of the better sorts deserve especial mention, and those who want an abundance of cut flowers should make a note of the following: Horatio, reddish terra-cotta; Advance, chestnut red; Mrs. Fergusson, pink, sport from Mary Anderson; Bellis, blush white; Emily Wells, clear pink; Anne Holden, buff yellow; Flambeau, bronzy chestnut, yellow base; Babs White, rose-pink; Paris White, pure white; Mizpah, rosy amaranth; Linton, orange yellow; Gem, blush, shaded buff; Belle, deep rose-pink; Midget, pink, large yellow disc; and Miniature, yellow. The latter two sorts are the smallest of their kind and are unique. All the foregoing are small flowered. Larger ones are Gwendoline Lock, clear rose; Edith Pagram, pink; Bronze Edith Pagram, bronze; Calendula, pure white; Belladonna, blush pink; Rycroft Belle, true pink; Progress, orange red, yellow base; Acme, bright pink; Belle of Weybridge, chestnut crimson; Stella, purest white; Miss Hampson, creamy white; Jessie Dean, rose-pink; F. C. Warden, creamy white; Rosie Bell, clear pink; Delicatissima, rosy fawn; and an immense quantity of others.

MESSRS. W. FROMOW & SONS, SUTTON COURT NURSERIES, CHISWICK.

ESTABLISHED IN 1829, this is a firm that has for a long time occupied a prominent position among nurserymen. A few notes, taken on a recent visit, may prove of interest. The conservatory and palm house—a good-sized and imposing-looking structure—contains some fine Palms for decorative purposes. In conversation with Mr. Joseph Fromow, the principal of the firm, I learnt that the *Latania*s are not in the demand they were formerly for decoration, their large and spreading fan-shaped leaves occupying too much space. Of course the fine *L. borbonica* is grown, nevertheless, as those in the trade never know what they may be called upon to supply. Again, some of the *Kentias*, *Seafortthias*, and *Arecas* are found too soft to stand in halls, rooms, &c. These noble plants and other classes are, however, represented by some fine specimens. In another house (there are some twenty-four houses devoted to the culture of stove and greenhouse plants) I noticed a grand stock of *Cocos weddelliana*, which is a universal favourite. An attractive sight was made by a fine batch of that most popular of the *Solanums*, *S. capsicastrum*, the berries, with which the plants are richly clothed, assuming their bright colouring; the picture will be finished when these bright red berries (about the size of small Cherries) are in full colouration, one that continues throughout the winter.

Begonias Gloire de Lorraine and *Turnford Hall* (white), raised by Mr. Thomas Rochford, were very showy. *Crotons* were noticeable with their brightly coloured foliage. Well worth particularising are *Prince of Wales*, *Warreni*, *Reidi*, *Gordonii*, *Etna*, *Countess*, and *Andreanus*. A very useful plant for greenhouse decoration, particularly when in fruit, is the *Otaheite Orange*, which is grown here. Ferns were represented by a well-grown, varied, and healthy stock of sorts in universal demand. The *Chrysanthemum*, as befitted the season of the year, was well represented. A nearly hardy and good plant—greenhouse protection, however, needed now—is *Eurya latifolia variegata*. Of this a good stock was noted with its showy variegation of green, yellow, and pink—a very useful decorative subject. Coming outside I saw a general collection of hardy trees, shrubs, climbers, *Roses*, &c. Visitors to our leading metropolitan exhibitions have, doubtless, noticed the fine displays often

made by this firm of the beautiful Japanese Maples.

It was pleasant to hear that Chiswick, as represented by this nursery, is contributing a portion of its stock of *Magnolias* to the planting now taking place in the surroundings of Buckingham Palace in connexion with the memorial there to the late Queen Victoria. In the immediate neighbourhood the firm has a branch nursery at Acton Green, where *Ivies*, *Euonymus*, *Aucubas*, and *Mulberries* are grown. Here is a curious point, *Euonymus* and *Mulberries* are not found a success at the firm's Bagshot nurseries, but they flourish in London. Messrs. Fromow have at their Windlesham Nurseries, Bagshot, an area of 200 acres for the cultivation of *Roses*, fruit trees, *Rhododendrons*, and American plants generally, conifers, ornamental and forest trees, and hardy shrubs of all descriptions in large quantities. The nurseries at Hounslow are devoted to ornamental trees and general hardy plants and shrubs.

Quo.

SOCIETIES.

NATIONAL CHRYSANTHEMUM SOCIETY. FLORAL COMMITTEE.

THE meeting at Essex Hall, Strand, W.C., on Monday, the 20th ult., was quite equal to any of those that have been held this season. Novelties were numerous and the quality good. Mr. D. B. Crane occupied the chair, and the following were given awards:

Katie Patgrave.—This is a beautiful Japanese incurved bloom, with long, fairly broad petals, curling, and making up a deep or massive-looking flower of fine form; colour, ivory white, richer towards the centre. First-class certificate to Mr. W. Seward, Hanwell.

British Empire.—A large, full Japanese reflexed bloom, having long petals of medium breadth. It is a capital exhibition flower of drooping form; colour, reddish chestnut on an orange yellow ground with yellow base. First-class certificate to Mr. Norman Davis, Framfield, Sussex.

Mme. R. Oberthur.—A beautiful ivory white flower, with rather narrow petals. It is a Japanese reflexed variety of drooping form. First-class certificate also to Mr. Davis.

John Peed.—An immense bloom of a rather coarse character. As exhibited the flowers were very full and just "finished." Petals broad, rather flat and erect, building a Japanese reflexed specimen; colour white, freely tinted, rosy lilac. First-class certificate to Mr. W. Bullimore, Edgware.

Souvenir de Sombrez.—This is an attractive market variety, the colour of which may be described as chestnut, tipped gold. The flowers are rather large, and the petals broad and of good substance. The plant is distinctly free flowering. First-class certificate as a market variety to Mr. Davis.

Miss Irene Cragg.—This is a pure white single sort, of small to medium size. The flowers are of good form, and are set off with a well-formed yellow disc. First-class certificate to Messrs. Cragg, Harrison, and Cragg, Hounslow.

Phyllis.—A beautiful snow-white flower, of small to medium size, with whitish, almost Anemone-like, disc. It is a distinct acquisition, the shape being charming. First-class certificate also to Messrs. Cragg.

Maud Mattheus.—In this instance we have a fine example of what may be termed a large-flowered Japanese single, the blooms being 5 inches to 6 inches in diameter, petals long and of medium width; colour deep rose, with white zone round the yellow disc. First-class certificate to Mr. H. Redden, Manor House Gardens, West Merstham.

The committee commended:
Mrs. John Hughes.—A splendid decorative single white and long lasting; colour, creamy white, with rich yellow centre. From Messrs. Cragg.

Bessie Simmons.—This is a striking bright rosy magenta small flower, that is produced quite freely, making an attractive plant. The committee commended this variety for its decorative qualities. From Mr. Davis.

Several varieties the committee expressed a wish to see again, viz., A. W. H. Fryer, a large Japanese of drooping form; colour, bright chestnut, with old gold reverse. Frank Trestain, a buff incurved, with golden centre, a bloom of promise; Mme. G. Rivol, the yellowish buff sport from Mme. Paolo Radaielli; and Mr. F. Martin, a dull red Japanese of drooping form, with petals of medium width. There was also a good decorative variety named *Hortus Toulousanus*, a rich bronze flower of even form, the latter reminding us of *Source d'Or*.

The executive committee held its usual monthly meeting the same evening at Carr's Restaurant, Strand, W.C., when the chair was taken by Mr. T. Bevan. A rough financial statement was presented by Mr. G. Dean, showing a substantial balance in hand. Messrs. Hawes, Gover, and Want were elected as stewards for the forthcoming December show of the society. A statistical account of the different varieties of Japanese blooms staged at the November show was then submitted by its compiler, Mr. Young. It appears that about 2,000 blooms

were staged at that show in 219 different varieties, and each one was given in the order it occupied in the list, precedence being accorded on account of the number of times it was staged. The first few names on the list are F. S. Vallis, 75 times on boards, 46 times in vases; Bessie Godfrey, 71 on boards, 25 in vases; Mrs. G. Mileham, 56 on boards, 25 in vases; Henry Perkins, 54 on boards, 10 in vases. The Carnot family has made a rapid drop in popularity, and when the audit is published in its entirety it will be interesting material for the exhibitor as being an audit of actual fact and not one of mere opinion.

Mr. Harman Payne, the foreign secretary, gave a brief account of the visit of the National Chrysanthemum Society's deputation to the great International Chrysanthemum Show recently held in Paris, and expressed his and his colleagues' satisfaction at the very cordial and friendly reception accorded to the deputation.

On the motion of Mr. Witty, it was unanimously resolved that the society's small gold medal be presented to Mr. Caseton for his valuable services rendered to the society on the occasion of the recent shows at the Crystal Palace. The presentation will take place at the annual dinner at the Holborn Restaurant. The committee also passed a vote of condolence with the families of Mr. A. Sclerandis and Mr. de Reydellet, both members of the National Chrysanthemum Society for many years past. The election of new members closed the proceedings.

NORTH FERRIBY (YORKS) GARDENERS' SOCIETY.

THE members of this society met on Wednesday, the 8th ult., to continue the discussion on "Diseases of Fruit Trees," Mr. F. Reid presiding. The muscel scale, Pear midge, Pear-leaf blotch, American blight, codlin moth, &c., were mentioned. The competition for one vase of flowers arranged for effect by under gardeners was well contested, Mr. F. Gibbons, Swanland Manor, was awarded first prize; Mr. F. Bosworth, Swanland Manor, second prize; Mr. W. Spenceur Ferriby, third prize. There were also on view plants of single Chrysanthemums, *Solanum capsicastrum* (well berried), *Cyclamens*, *Dracenas*, &c.

On Wednesday, the 15th ult., Mr. J. W. Dabbs, Elloughton, gave an interesting and practical paper on "Organic and Inorganic Manures." His remarks gave rise to a good discussion, which was joined in by Mr. Binnes, Mr. Akester, Mr. Reid, and Mr. Jennings. Mr. A. Lauder moved a vote of thanks to Mr. Dabbs for his most interesting and instructive paper. There was a good show of large Chrysanthemum blooms on view. A vote of thanks to the chairman brought a most instructive evening to a close.

EAST ANGLIAN HORTICULTURAL CLUB.

AT the November meeting of this club an illustrated lecture was given by Mr. Edward Peake, entitled "Garden Interests." Mr. Peake, who as a botanist and garden enthusiast, has a happy knack of quick perception of any beautiful subject, and being interested in photography, had a large collection of slides of pictures from various parts of this and other countries to show the audience. The lecture was listened to with much attention, and a hearty vote of thanks accorded him.

The exhibition tables presented a charming appearance, for in addition to the usual exhibits of flowers, fruits, and vegetables six competitors set up decorated mirrors, a subject introduced to the club at the instigation of Mr. J. Clayton of Messrs. Daniels Bros., Limited, some time ago. The winners of the three prizes kindly presented by Messrs. Daniels were: First, Mr. W. Palmer, gardener to J. B. Coaks, Esq., Thorpe, who effectually used *Begonias*, pink and white; second, Mr. W. Rush, gardener to F. F. Hinde, Esq., Thorpe Hamlet, who used *Chrysanthemums*, scarlet *Geraniums*, and *Tropeolums*; third, Mr. C. H. Fox, gardener to Sir E. B. Mansel, Catton, whose arrangement consisted of *Bougainvillea* and *Primula*. Mr. F. Williams, gardener to Louis Tillet, Esq., M.P., Catton, staged three magnificent plants of *Gloire de Lorraine Begonia*, which gained for him first position in the evening's competition for the Girling Cup. Mr. J. E. Barnes, Great Eastern Seed Stores, Norwich, offered prizes for his specialities of Beet, Sprouts, and Celery, and had the satisfaction of seeing thirty-one entries for the prizes. Among the large gathering present were Messrs. J. Powley, J. Clayton, and J. Forder (Norwich), H. Read (Brundall), T. E. Field (Ashwellthorpe), H. Goude, C. H. Fox, and F. Williams (Catton), and Mr. W. L. Wallis, secretary.

SCOTTISH HORTICULTURAL SOCIETIES.

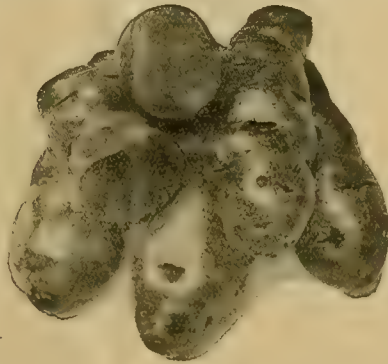
AYR.—The annual show of the Ayr Chrysanthemum Society was held in the Town Hall on Wednesday, the 15th ult. The show proved a great advance upon those of former years, and in practically all the classes a marked improvement was shown, this being specially noticeable in the classes for Chrysanthemum blooms. In these there was an increase of no fewer than seventy entries over those of last year. In the classes for cut blooms the principal prizes fell to Mr. D. Buchanan, gardener to Colonel Dalrymple Hamilton, Bargany, and to Mr. R. Lawrie, gardener to Mr. M. Smith, Roselea, Prestwick, both of whom showed exceedingly well. Pot plants were also good, and here the leading prizes were won by Mr. Anderson, Auchendrane; Mr. A. Noble, Corsehill; Mr. T. Rowan, Ayr; Mr. A. T. B. yd, Curric House; Mr. J. W. Shields, Kilkerran; and Mr. J. W. Kerr. The fruit classes were excellent, and in those for Grapes the leading prizes were won by Mr. D. Buchanan and Mr. A. Noble. The prizes for Apples and Peas were principally won by Mr. A. McCartney, gardener to Mr. R. A. Oswald, Auchincruive, a notable winner with these at shows in this part of Scotland.

ABERDEEN.—The annual show which was held in the Music Hall Buildings, Aberdeen, on the 17th and 18th ult., was the best yet held by the society. The entries numbered 700, a considerable advance upon those of former years, and in this respect it constitutes a record. In quality, while it could not be said that there was any marked advance, there was a considerable general improvement—more, indeed, than had been looked for on account of the character of the past season. The whole, practically, of the spacious Music Hall Buildings suite of rooms had been secured for the show, and the arrangements of the committee, of which Mr. M. H. Sinclair, seedsman, was the able secretary, were as perfect as possible under the circumstances. Vegetables were staged in the square room, the pot plants, amateur's cut flowers, and the fruit in the ballroom, and the drawings and paintings in the square room. The large hall was set apart for the cut blooms and other exhibits in pots, thus adding greatly to the spectacular effect, the whole being a show creditable to this important centre of northern Scottish gardening. In the Chrysanthemum cut bloom classes the chief interest was in the contest for the challenge cup for twelve vases Japanese, three blooms in each, and here the competition was a strong one, the award falling to Mr. A. Hutton, gardener to Mr. George Keith, Usan House, Montrose. His flowers were *Mafeking Hero*, *Ethel Fitzroy*, *Lady Conyers*, *F. S. Vallis* (very fine), *Mrs. Barkley*, *Henry Stowe*, *Mr. J. Bryant*, *Sensation*, *Mme. Caddbury*, *Miss Mildred Ware*, *Mrs. F. W. Vallis*, and *Bessie Godfrey*. The second place was taken by Mr. E. Joss, gardener at Sunnyside House, Montrose; third, Mr. W. Patterson, Balmadie. Mr. J. Petrie, Crathes Castle, was first for twenty-four Japanese; second, Mr. J. Wilson, Montrose; third, Mr. J. A. Grigor, Banchory House. For twelve Japanese, Mr. A. Oliphant, The Links, Montrose, was first. Mr. J. Tough, Great Western Road, Aberdeen, was first for six. Mr. G. Jamieson had the best twelve incurved, and Mr. J. Jenkins the best six. The prize-winners in the other classes for cut blooms were Messrs. Hutton, J. A. Grigor, A. Reid, and Oliphant. Mr. W. Scorgie had the best twenty-four trusses of Christmas Roses, not disbudded; Mr. A. Reid the best six varieties of cut flowers from stove or greenhouse and the best Orchids. The prizes for bouquets, baskets, sprays, wreaths, and other florists' arrangements fell to Messrs. Ellis, Knowles and Son, R. Burns, W. Scorgie, and J. A. Grigor. Mr. G. Jamieson, Burton, Loughborough, had the best incurved bloom in the show, and Mr. A. Hutton the best Japanese and the largest bloom in the show. As a whole the cut blooms were very fine. The pot plants were good, and the groups, of which three were arranged, added greatly to the appearance of the hall. The first prize for these went to Mr. J. A. Grigor, gardener to Sir D. Stewart, Banchory House, with a good arrangement, characterised by excellent taste and quality; second, Mr. A. Duncan, gardener to Mr. A. Maitland, Albyn Place, Aberdeen; third, three blooms to a plant, Mr. A. Archibald was first; for specimens, Mr. G. Milne was first; for singles, Mr. J. A. Grigor; the first prize-winners in the other Chrysanthemum plant classes being Messrs. Archibald, J. Grigor, A. M. Russell, and G. Milne. In the other plant classes the first prize-winners were Messrs. J. McKay, W. Patterson, W. McKie, A. Reid, J. Grigor, A. Hutton, and G. Milne. Fruit was a good class, Mr. W. M. Muir, Rosehaugh, leading with a collection of Apples and baking Pears, Mr. J. D. Robertson with baking Apples, Mr. J. Pirie with dessert Apples, Mr. Jamieson with dessert Pears, Mr. J. Petrie having the best black Grapes, and Mr. J. Rae the best Tomatoes. The vegetables were very good, although considerably behind those shown by Mr. E. Beckett at Edinburgh the previous day, but Mr. E. Joss, Sunnyside, Montrose, a noted northern grower, came first in the collection with a nice lot of high quality. The amateurs' classes for pot plants and cut blooms were very good, the principal winners being Mr. A. M. Russell, Mr. J. Davidson, Mr. J. D. Smith, Mr. J. C. Brown, Mr. J. Jenkins, Mr. J. Coutts, Mr. J. Tough, Mr. G. Maitland, Mr. G. Milne, and Mr. J. Cumming. Trade exhibits from a distance consisted mainly of Chrysanthemums from Messrs. W. Wells, Limited, Merstham, fine displays of fruit from Messrs. T. Rivers and Sons, Sawbridgeworth, and Messrs. G. Bunyard and Co., Maidstone, and local exhibitors included Messrs. Knowles and Sons, Aberdeen, who sent fruit, flowers, and florists' arrangements; Messrs. J. Strachan and Co., Aberdeen, home and foreign fruit; Mr. A. Burns, jun., Aberdeen, flowers and fruit; Mr. W. Smith, Aberdeen, Grapes; and Mr. W. A. Du Tan, Aberdeen, hardy Chrysanthemums. The opening ceremony was performed by Lord Provost Lyon.

KILMARNOCK CHRYSANTHEMUM SHOW.—The annual show of this society was held in the large Agricultural Hall, Kilmarnock, on the 16th ult. Colonel Denny, M.P., presided at the opening ceremony, which was admirably performed by the Countess of Loudoun, in the presence of a large audience. The show was well supported by a good attendance of the public during the day and evening. As compared with the former shows held by the society, there was a falling off in the entries from last year, but those who visited the show considered that the quality of the exhibits was even better than those staged the previous November. This was very apparent in the cut bloom classes, but the plants and other classes in the show were excellent as a whole. The winners in the respective classes cannot be given in detail here, but the leading prize-takers who were successful in the open section included Mr. R. Brown, Balcarres House, Kilmarnock; Mr. A. J. Ferguson, Kilmarnock; Mr. A. Miller, Cumnock; Mr. Dingwall, Ardrossan; Mr. J. Muir, Crosbie Tower, Ardrossan; Mr. Robert Lawrie, Roselea, Prestwick; Mr. P. McDonald, Hillside, Cumnock; and Mr. A. McCartney, Auchencruive, Ayr.

NATIONAL POTATO SOCIETY'S SHOW.

The second annual exhibition of the National Potato Society was held in the hall of the Royal Horticultural Society on Thursday and Friday, the 23rd and 24th ult. There were some 1,200 entries, considerably more than at the first show in 1904. The exhibition was largely made up of non-competitive displays from nurserymen and trade growers. While some of these were quite attractively arranged, others with backgrounds of baize in varying shades of green, or in red and white, were most crude and ugly, and made the appearance of the show as



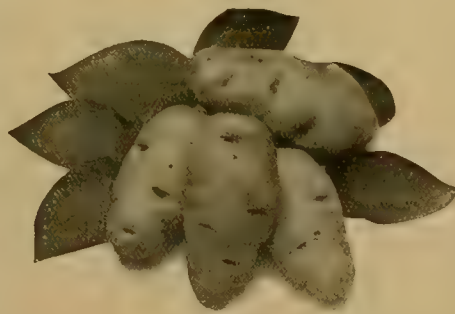
Copyright. Sutton & Sons.
BLACK CONGO POTATO.
(Of excellent flavour; chiefly grown for the dense purple colour of the flesh. Useful in ornamental cookery and in salads.)

a whole most uninviting. Among the competitive classes there was one for the best flavoured Potatoes, another for the best disease-resisting varieties, and one for the best yield from twelve consecutive roots of one variety. A class in which a good deal of interest centred was that for the best collection of twelve varieties, nine tubers of each, from a special list. Although a fifty guinea challenge cup was offered with the first prize by Messrs. James Carter and Co. and Mr. A. Findlay, only two competed. The reason more did not compete was no doubt owing to the seed of the specified varieties being so dear. The hon. secretary of the society, Mr. Walter P. Wright, acted as general secretary, and was assisted by a large secretarial staff, who carried through the heavy work admirably. On Thursday afternoon a conference was held on "Potato Diseases," which Mr. C. Foster opened with a short paper on "Curli." At the dinner held in the evening some sixty persons were present, the chair being taken by Mr. A. D. Hall.

COMPETITIVE CLASSES.

In the special audit class for one dish of each of the first twelve varieties in the audit of 1904, there were four competitors, the first prize being won by Mr. F. Pickering, Woodhall Spa, Lincs, with very good tubers of the specified varieties, especially of *Duchess of Cornwall*, *King Edward*, *Up-to-Date*, and *Discovery*; second, Mr. R. W. Green, Wisbech, with an excellent lot of tubers also; third, Mr. H. Scott, Boreham Road Nurseries, Warminster.

For six dishes, distinct, any varieties, Mr. F. Pickering was first; Mr. W. Deal, Kelvedon, second; and Mr. P. W. Berwick, Ardross, Fife, N.B., was third.



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AFRICAN POTATO.
(Distinct in tuber, foliage, and flower from all other Potatoes. Grown for the past seventeen years in Messrs. Sutton and Sons' experimental grounds at Reading.)

Messrs. Sutton and Sons, Reading, offered prizes for twelve varieties of Potatoes, one dish of each (trade excluded). There was very keen competition in this class, the first prize being won by Mr. John Gemmell, Chapelton, Hamilton, N.B., with excellent tubers, especially of *Snowdrop*, *Purple Eyes*, *Mr. Bresse*, and *Britannia*; Mr. W. B. Ashton, Latham Park Gardens, Ormskirk, was a good second; third, Mr. A. Cole, The Gardens, Althorp Park, Northampton.

There was keen competition also in the class for six varieties, distinct, one dish of each the prize again being

given by Messrs. Sutton and Sons. The first prize was won by Mr. J. Robertson, Smailholm, Kelso, N.B., with good samples; second, Mr. John Gemmell, Hamilton, N.B.; third, Mr. B. Ashton, Latham Gardens, Ormskirk.

A magnificent silver challenge cup value £50 was offered by Messrs. James Carter and Co., High Holborn, and Mr. A. Findlay, Fife, N.B., to amateurs, private gardeners, and Potato farmers, for the best collection of twelve distinct varieties of Potatoes from a selected list. There were only two competitors, the first prize being won by Mr. Ben Ashton, Latham Park Gardens, Ormskirk, with a splendid lot. Especially good were *Northern Star*, *Empress Queen*, *Monarch*, *Snowball*, *Evergood*, and *Advancer*; second, Mr. Ridgewell, The Gardens, Histon, Cambridge.

A silver cup (presented by Messrs. Johnson and Sons, Limited, Boston), offered for the best total yield of any variety from twelve consecutive roots, was won by Mr. John Gemmell, Flaksfield, Chapelton, Hamilton, N.B., for 147lb. of the variety *Scotch Triumph*.

For eight varieties of disease-resisting Potatoes, to include not less than four of the chosen sorts in the election of 1904, Mr. J. H. Ridgewell, The Gardens, Histon, Cambridge, was first. *Factor*, *Evergood*, *Royal Kidney*, *Cigarette*, *Duchess of Cornwall*, and *Sir John Llewelyn* were of the best; second, Mr. Miles, gardener to the Hon. E. Hubbard, Downe, Kent; third, Mr. John Gemmell, Hamilton, N.B. Competition in this class was very keen.

In the class for six varieties of Potatoes for flavour, to include not less than four of the chief sorts in the election of 1904, the first prize went to Mr. J. H. Ridgewell, The Gardens, Histon, Cambridge, for excellent tubers of *Royal Kidney*, *Duchess of Cornwall*, *Evergood*, *Factor*, *Snowdrop*, and *Webb's Chieftain*.

For six varieties, distinct (open only to societies affiliated with the National Potato Society), the Cambridgeshire Horticultural Society won the first prize—tubers grown by Mr. A. Matthew, 20, Trinity Road, Cambridge.

There were numerous classes for single dishes of certain specified varieties. Prizes were offered by various nurserymen. There was keen competition in the class for *King Edward VII.*, the first prize being won by Mr. A. Lawson, Anfield, King's Kettle, Fife. The class for *Northern Star* was well contested, Mr. Christie, Scotsraig Mains, Tayport, being first.

Sutton's *Discovery* brought the largest number of competitors, Mr. B. Ashton, Ormskirk, being the first prize winner. Twenty-seven competed. Competition in the class for *Duchess of Norfolk* was keen, Mr. J. Bowles, Lower Slaughter, R.S.O., Gloucester, being first. *Eldorado* proved a popular variety, for which Mr. J. Bowles was also first. Mr. A. Hogarth, Kelso, N.B., was first for *Evergood*.

The *Factor* made a well-contested class, Mr. A. Lawson, Fife, N.B., being first.

Many entered the class for *Sir J. Llewelyn*, Mr. J. H. Ridgewell winning first prize.

Superlative was well shown, the first prize going to Mr. B. Ashton, Ormskirk. Windsor Castle, too, proved a popular sort, of which Mr. Hogarth, Kelso, had the best tubers.

The silver medal for the best dish of coloured Potatoes in the amateurs' and cottagers' classes was awarded to a dish of *Reading Russett*, shown by Mr. J. Robertson, Smailholm, Kelso, N.B. This dish was in the first prize stand in one of the cottagers' classes.

The silver medal for the best dish of white Potatoes in the amateurs' and cottagers' classes was awarded to a dish of *Britannia*, shown by Mr. A. Hogarth, New Smailholm, Kelso, N.B. His exhibit was also in a cottagers' class.

NON-COMPETITIVE EXHIBITS.

Messrs. Dobbie and Co., Rothsay, exhibited a splendid lot of Potatoes; the tubers were sound, clean, and tastefully arranged, making this one of the most attractive exhibits in the show. Many excellent sorts were included, rose, white, and purple varieties being represented. Particularly good were *King Edward*, *Ensign Bagley*, *Mr. Bresse*, *The Factor*, *Duke of York*, *Waverley*, *Sutton's Discovery*, *Early Puritan*, and many more. The Llewelyn Silver Challenge Cup, presented by the president of the society (Sir John T. D. Llewelyn, Bart.) for the best exhibit in the show was awarded to the very fine display set up by Messrs. Dobbie and Co.

Messrs. Sutton and Sons, Reading, exhibited a most interesting collection of Potatoes, chiefly botanical species and seedlings from crosses made in 1903 and 1904. Included among those of purely botanical interest were *Solanum Commersonii* (from Central South America), the *African Potato*, *Pink Fir Apple*, *Small White Fir Apple*, *Congo* (black right through), *Red Fir Apple*, *Solanum tuberosum*, *S. stoloniferum* (with tiny tubers), and others. One of the most interesting (a small purple tuber from the *Chonos Archipelago*) and the *Potato* of commerce. The hybrid is a medium-sized, attractive, pebble-shaped white tuber, which has valuable disease-resisting properties. These it derives from *S. Maglia*, a species that is found wild in swamps. Many promising seedlings, from crosses made in their experimental grounds, were also shown by Messrs. Sutton, as well as some new Potatoes growing upon the old tubers, showing how new Potatoes may be had in the autumn directly upon the old tubers.

Messrs. Webb and Sons, Wordsley, Stourbridge, exhibited a large collection of Potatoes in numerous varieties. The tubers were splendidly representative of the different sorts, all being sound and clean. Many of Messrs. Webb's own sorts were included, among them being several seedlings, *Guardian*, *Colonist* (a fine large white kidney), *Stourbridge Glory*, *Industry*, *Wordsley Pride*, *Goldfinder*, *Majesta*, and others. Some of the seedlings gave promise of becoming valuable additions.

Messrs. Daniels Brothers, Norwich, in their collection of Potatoes included splendid tubers of Daniels' *Sensation*

a large white kidney, and Daniels' Duke of York, introduced by them in 1893. Royal Kidney, Duchess of Cornwall, Sir John Llewelyn, Daniels' Duchess of Norfolk, and other good sorts were all well shown. Defiance Ashleaf is an excellent tuber of medium size, with shiny brown skin.

Messrs. Hogg and Robertson, Dublin, showed some grand tubers of such varieties as Money Maker, Engineer, Diamond, Marvel, Duchess of Cornwall, Eldorado, Great Scot, Diamond Reef, and other of the newer varieties. The Recorder is an attractive variety, with fairly large kidney-shaped, rough-skinned tubers. The samples of the variety Peckover were enormous.

Mr. John W. Byce, Welney, Cambs, made a striking display with tubers of the varieties Peckover and Maxim. Peckover is an immense white kidney, and Maxim is a smaller kidney. A new seedling called Fair Trade was also shown by Mr. Byce.

Mr. Joseph Bettinson, Outwell, exhibited several baskets of Potatoes, representing some of the most famous of the newer sorts. Sutton's Discovery, Dalmeny Jewel, Dalmeny Radium, Divide (a very large white Potato), and others.

Mr. James Gardine, Perth, also exhibited a collection that comprised Northern Star, Eldorado, Sir J. Llewelyn, King Edward, and others.

The Topper, a first early raised from Findlay's Challenge and Sutton's Ringleader, was shown by Mr. R. W. Pinney, Colleshill, Birmingham.

Mr. A. Lighton, Herton, showed a collection of Potatoes, attractively arranged, among which Findlay's Eldorado was most prominent.

Messrs. Alex. Dickson and Sons, Dublin, and Newtownards, showed Eldorado, Northern Star, Sir John Llewelyn, The Factor, Twentieth Century, and other good varieties.

Messrs. Isaac Poad and Sons, York, showed good tubers as gathered from the field of many of the best known varieties.

Mr. R. W. Green, Wisbech, showed clean samples of many good sorts, among which The Yeoman, purple-mottled and round; Early Rose, Duchess of Cornwall, Recorder, Evergood, and Discovery were conspicuous.

Mr. A. J. Butler, Scotter, Lincoln, exhibited tubers of The Magnet, a very large Potato, said to be a big cropper. Mr. F. Pickering, Woodhall Spa, Lincoln, exhibited dishes of the best known sorts, such as Discovery, Eldorado, &c.

Messrs. W. Davie and Co., Haddington, N.B., exhibited a large number of varieties, both old and new, white, purple, and red varieties were all well represented.

A new early Potato, called Sir David L. Salomons, said to be a fortnight earlier than The Duke of York, was shown by the raiser, Mr. W. Coleman, Swiss Gardens, Tunbridge Wells.

Mr. A. W. Pepper, Downham, showed a collection of Potatoes in many sorts. The newer sorts and also some of those now less familiar were among them.

Mr. Charles W. Broomhead, Winchester, showed some excellent tubers of seedling Potatoes. William Rufus, a round, rough-skinned purple; Caer Gwent, white kidney; several promising unnamed seedlings, Pink Coral, and Norman King (an immense tuber) were conspicuous.

Mr. James Kerr, Dumfries, showed a very attractive lot of Potatoes in many good sorts. Duchess of Cornwall, Conquering Hero, Electric Spark, a new white, large pebble-shaped tuber; Border Queen, large purple kidney; and Thousandfold were among the best.

Mr. Henry Scott, Warminster, Wilts, showed an excellent lot of Potatoes that included many of the newer sorts, as well as the older ones.

Messrs. W. Dennis and Sons, Kirtou, Lincoln, filled a large extent of table with Potatoes, immense tubers of Sir John Llewelyn, May Queen, Recorder, Duke of York, Sharpe's Express, Northern Star, Evergood, and others were shown.

Messrs. George Massey and Sons, Spalding, Lincolnshire, exhibited a large collection of medium-sized tubers of many sorts. Myatt's Ashleaf, Maid of Coll, Victor, Dalmeny Radium, Empress Queen, Excelsior, and many more were well represented.

Mr. W. Deal, Kelvedon, Essex, showed a collection of Potatoes that contained excellent tubers of many sorts, e.g., Edward VII., Nobleman, Highlander, and many seedlings after their first year's growth.

Messrs. W. and W. Johnson, Boston, Lincolnshire, exhibited a large number of baskets of Potatoes in fifty distinct varieties, and, needless to say, all the best sorts were well shown. The Diamond was prominently displayed.

Mr. S. M. Thomson, Warrender Park Crescent, Edinburgh, exhibited varieties of the Dalmeny varieties of Potato, for instance Dalmeny Radium, Dalmeny Don, Dalmeny Jewel, and others.

Mr. T. A. Scarlett, Market Street, Edinburgh, showed some very good tubers of Scotch-grown seed Potatoes. Heath's Blossom, Midlothian Early, Table Talk, Southern Queen, and Money Maker were finely shown.

A new seedling Potato Henry Finesham, was exhibited by Mr. F. G. Crampton, Cranbrook, Kent. This large kidney has received an award of merit from the Royal Horticultural Society.

Messrs. Fidler and Sons, Reading, exhibited a fine lot of Potatoes, that included excellent samples of Sir John Llewelyn, King Edward VII., Sutton's Discovery, Northern Star, The Warrior, Fidler's Invincible, Cigarette, and many more.

Mr. A. Findlay, Markinch, Scotland, exhibited some of his famous seedling Potatoes, such as Great Scot, Million Maker, Ruby Queen, Empress Queen, Eldorado, and others.

Mr. J. F. Williamson, Mallow, Ireland, exhibited a splendid lot of tubers of the variety Duchess of Cornwall, generally admitted to be one of the very best of the newer

Potatoes. Mr. Williamson also showed Kerr's Conquering Hero and The Colleen.

ROYAL HORTICULTURAL SOCIETY.

FLORAL COMMITTEE.—NOVEMBER 21.

Present: Mr. H. B. May (chairman), Messrs. E. H. Jenkins, George Nicholson, John Green, G. Reuthe, William Howe, J. F. McLeod, James Hudson, Charles Blick, James Walker, George Gordon, William Cuthbertson, W. P. Thomson, W. J. James, Charles E. Shea, J. T. Bennett-Poe, J. Jennings, Charles Dixon, W. G. Baker, C. T. Drury, and R. C. Nutcutt.

The exhibit of winter-flowering Begonias from Messrs. Veitch and Sons, Limited, Chelsea, was one of the features of the exhibition. We have seen these Begonias on more than one occasion, and to no mean advantage. But the more we see of them in the depth of the winter's gloom the more we appreciate their true worth and value. Silver Flora medal.

Mr. H. B. May, Edmonton, contributed a table of Begonias and Ferns. The former were chiefly of the B. Gloire de Lorraine type in their several forms, including Marie, a large-flowered sport from Mrs. L. de Rothschild and Masterpiece, a deep pink sport from the type. Mont Blanc is a large-flowered pure white form from Turnford Hall, and apparently taller and more vigorous in growth. Silver Flora medal.

Messrs. W. Wells and Co., Marsham, contributed a large array of Chrysanthemums, single and double. Of the singles we take Florence Robinson, white; Miss L. Bunyard, yellow; Nancy Perkins, white; and Belle of Weybridge, red, as the more noticeable. Silver Banksian medal.

An excellent exhibit of decorative Chrysanthemums came from Mr. Philip Ladd, Swanley Junction. The flower-heads were arranged in vases, a dozen of each fully representing each sort and making a good display. Not many new sorts were noted, but all were of merit. It is noteworthy to remark of this really fine display that the entire lot were staged in the usual market bunches, and they reflected credit upon the excellent way the leading market men display their goods. Silver-gilt Banksian medal.

Mr. William Seward, Hill Farm, Hanwell, showed Katie Palgrave (Japanese), Marjorie Sheald, and Frank Tristram, the two last of the incurved section of Chrysanthemum.

Messrs. Hugh Low and Co., Enfield, had a good group of cut Carnations, with Cyclamen Louis Salmon and other winter-flowering plants. The Carnations were very good. A few winter-flowering Heaths, Acacias, and other flowering plants came from the same firm. Silver Banksian medal.

Mr. E. Beckett, The Gardens, Aldenham House, Elstree, had a fine table of cut Chrysanthemums, which included many Pompons and singles, the whole of a decorative character and naturally grown. Miss M. Anderson, Source d'Or, King of Siam, crimson, single; Jeanne Beckett, a pure white, with Anemone-formed centre, were good and pleasing varieties. Silver Flora medal.

Mr. H. J. Jones, Lewisham, also staged a fine lot of chiefly single Chrysanthemums, e.g., Moonbeam, white, flushed pink; Bertie Bindon, a very pretty variety, white, with forked petals; Mr. Will Jordan, reddish violet; Flamingo, deep chestnut-bronze; Glory, yellow; and Golden Rock, a free-flowering kind of much merit. Silver Banksian medal.

Mr. G. Reuthe, Keston, Kent, had Crocus species in several colours, a variety of hybrid Nerines, and a fine pap of Helleborus maximus, a grand plant in the open air at the present time.

Mr. G. Ferguson, The Hollies, Weybridge (gardener, Mr. F. W. Smith), showed two single Chrysanthemums, Queen Aurantia and Connie Jones, the first-named a most effective tone of orange.

Messrs. Cragg, Harrison, and Cragg, Heston, Middlesex, had an admirable lot of single Chrysanthemums, in which was seen much variety. Silver Banksian medal.

Mr. A. F. Dutton's exhibit of cut Carnations was very fine, admirably arranged in the most effective manner. Tall vases each containing two dozen good flowers formed the chief feature. Christmas Eve is an intensely rich scarlet. These tall vases appearing from out of a base of Ferns made a most pleasing arrangement. Silver Banksian medal.

Mr. S. Mortimer, Farnham, Surrey, also showed cut Carnations. Cut sprays of All the Year Round Stock were exhibited in good condition. Silver Banksian medal.

Messrs. H. Cannell and Sons, Swanley, contributed many Chrysanthemums in variety, singles, and others of a decorative character. The zonal Pelargoniums from this firm always incite admiration, and we do not think we have seen them better shown than on the present occasion. Silver Flora medal.

Messrs. J. Peed and Sons, Norwood, had a large variety of alpine plants—Saxifrages, Sedums, and other dwarf alpine and rock plants which are interesting to the specialist even when not in flower.

Messrs. T. S. Ware, Limited, Feltham, also staged a large array of alpine plants in pots and pans, the better-grown examples giving a good idea of the winter character of these plants. Some of the more distinct of the silvery-leaved sorts are suitable for massing for effect. The firm also exhibited Tree Carnations.

Mr. L. R. Russell, Richmond, had a very interesting lot of shrubs in pots, as Eleagnus, Eurya, Hedera flavesces, and Ligustrum japonicum coriaceum, a fine plant with bronzed leafage.

NEW PLANT.

Carnation Christmas Eve.—An intensely brilliant scarlet, not of large size, but nicely scented, and in other respects a flower that will be most welcome in winter time. From Mr. A. F. Dutton, Iver, Bucks. Award of merit.

CHRYSANTHEMUM CONGRESS IN PARIS.

The French National Chrysanthemum Society, in accordance with its usual custom of holding an annual congress in a different town each year, decided to hold the congress for 1905 in Paris in conjunction with the Great International Chrysanthemum Show organised by its sister society the National Horticultural Society of France. The programme was a rather lengthy one, and some of the subjects were not dealt with but were referred to next year's congress, which will be held in Caen. The chair was taken by M. Viger, the honorary president of the society, he being supported on the platform by Messrs. Ernest Calvat, Harman Payne, Bruant, A. Truffaut, Abel Chatenay, Charles Ballet, and Maxime de la Rocheverie, who constituted the bureau of the congress. Before the serious business of the meeting commenced, M. de la Rocheverie made an interesting presentation to M. Viger of a bronze statuette in recognition of his services to the French National Chrysanthemum Society.

Interesting papers were read by Dr. Chiffot on "Damping of Chrysanthemum Blooms," and by M. Dauthenay on "The Use of the Répertoire des Couleurs," a work recently published by M. Aberthür of Rennes, under the auspices of the society. Discussion ensued, several members taking part. The same afternoon other papers were also read on the best means of popularising and spreading abroad a taste for the culture of the Chrysanthemum. There was a lively discussion on this subject, which was followed with a keen interest. A second sitting of the congress took place at 9 a.m. on the following morning.

THE BATH GARDENERS' SOCIETY.

THE usual fortnightly meeting was held at the Forester's Hall, Bath, on Monday, the 13th ult., Mr. T. Parrott presiding over a large attendance. There was again an excellent display of exhibits ranged on the table, noteworthy among them being the splendid collection of fruit exhibited by Mr. Chivers, which, in addition to receiving the maximum number of points, was awarded a certificate of merit. Mr. Roper also staged some beautiful Chrysanthemum blooms, which received a similar award. Mr. W. Grant read a paper on "Melon Culture," discussing its growth, varieties, and disease, and spoke of his experience as a considerable grower. The usual debate followed. Thirteen new members were elected, including three vice-presidents. A vote of thanks to Mr. Grant and the chairman concluded the meeting.

YORK CHRYSANTHEMUM SHOW.

THE annual autumn show was held, as usual, in the exhibition building on the 15th, 16th, and 17th ult., and was a success. The strong feature at York shows is the grouping of Chrysanthemums and other plants. At the present show there were twenty-three groups in the four classes, which alone were a fine feature.

The leading class was that for a group of Chrysanthemums, interspersed with foliage plants, arranged for effect in 100 square feet. Mr. V. Waterhouse, gardener to Mrs. W. T. Owbridge, The Grange, Cottingham, Hull, won first prize with suitable material not too heavily arranged. The best group of Chrysanthemums only came from Mr. Hields, 12, Barlow Street, Acomb, York. Supporting the gallery in the building are pillars 17 feet high, and prizes were offered for decorating these 6 feet wide at the base. In the class for miscellaneous plants, Mr. J. Blacker, Thorpe Villas, Selby, was first with suitable material lightly disposed. A similar class for free-flowering Chrysanthemums, interspersed with foliage plants, was popular. Seven competed, and Mr. G. Cottam, Cottingham, Hull, was first with fully-developed blooms of single-flowered varieties, with bright foliage plants; second, Mr. Blacker.

Specimen Chrysanthemum plants are invariably shown well here. Mr. Everard, gardener to Mrs. Gutch, Holgate Lodge, York, won the leading prize in several classes with high-class plants. Cut blooms were numerous and good. Mr. McPherson, gardener to Lord Loudesborough, Market Weighton, secured first prizes for thirty-six, eighteen incurved, eighteen, twelve, and six Japanese, one variety, yellow and white in every instance showing high quality blooms. Mr. D. Williams, gardener to the Earl of Feversham, Duncombe Park, Helmsley, and Mr. Folkard, gardener to Lady Walker, Sand Hutton Hall, followed in several classes.

The decorative section is always a strong feature here. For six bunches, single-flowered sorts, Mr. Everard was first, while for twelve bunches, decorative sorts, Messrs. Theakstone and Son, Hull Road, Greenston, York, were first with really desirable kinds.

Baskets and vases of Chrysanthemums were really a strong feature. Mr. W. L. Appleton, Oakville, Melbourne Street, York, won in the former class, Messrs. Theakstone securing a like award among twenty-two entries for one vase.

MANCHESTER GARDENERS' SOCIETY.

THE first meeting of the session 1905-6 was held in the Memorial Hall, Albert Square, on the 9th inst., Mr. James Brown, J.P., president of the society, in the chair. The chairman, in introducing the lecturer, Mr. R. G. Waterman, secretary and treasurer of the Woolton Society, stated that he had come from Scotland a day earlier than he intended so that he might hear something on the subject he was much interested in: "Exhibition and other Roses." A capital discussion followed the excellent paper, in which many of the members took part. At the conclusion, on the motion of Mr. Abraham Stansfield, a cordial vote of thanks was tendered to the lecturer for his admirable paper.



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NORFOLK AND NORWICH CHRYSANTHEMUM.

THIS, one of the oldest established in the kingdom, was held on the 16th, 17th, and 18th ult. in St. Andrew's Hall, Norwich. The exhibits in the flower classes were far in advance of those of former years, but fruits were not so numerous. The hon. secretary, Mr. W. Smith, Winchester House, Norwich, and his committee deserve congratulations on the decided improvement of the arrangement of the exhibits. A new feature was a circular group of pot Chrysanthemums and foliage plants, for which, in addition to cash prizes by the society, a handsome silver cup was given by Mr. J. Dawson Paul, Norwich, to be won twice by the same exhibitor before it becomes his absolute property. Mr. H. Gonde, The Grange Gardens, Catton, had the pleasure of winning this first. Other good groups came from Mr. W. Palmer, gardener to J. B. Coaks, Esq.; Mr. C. Burtenshaw, gardener to H. Skelton, Esq.; and Mr. W. Rush, gardener to F. P. Hinde, Esq. In the cut flower section, Mr. F. Hanson, gardener to Sir Saville Crossley, Bart., M.P., Somerleyton Hall, scored a series of successes. He was first for forty-eight Japanese, first for twenty-four incurved, first for six (one variety) incurved, second for six vases, three blooms of each, and also received both the National Chrysanthemum Society's medals for the best Japanese with Bessie Godfrey and the best incurved with Mme. Ferlat. Mr. H. Gonde also had another notable win in the class for thirty-six Japanese, closed to Norfolk residents, and was a good second for six coloured, one variety, with Mrs. F. W. Vallis, a fine half-dozen blooms. Mr. T. Simpson, gardener to the Earl of Stradbroke, Henham Hall, also took several prizes for cut blooms. Mr. Boulter, gardener to F. Randall, Esq., North Walsham, was a prominent winner for Pompons and singles, while Mr. W. Chettleburgh, gardener to Colonel Rous, Worstead, was the most successful exhibitor of Anemone-flowered. Mr. Robert Holmes of Tuckswood Farm, Norwich, was a good first for six vases with bold, massive blooms and good foliage. He also exhibited Tomatoes of his famous sorts and the new Burbank Crimson Winter Rhubarb. Some good blooms of exotics were also staged by various local growers in the miscellaneous cut flower classes.

In the pot plant section, without a doubt the most attractive exhibit was the group of Orchids sent by H. Rider Haggard, Esq., Ditchingham Hall. These were pictures of good health, and the flowers perfect. Begonias Gloire de Lorraine as shown by Mr. H. Gonde will certainly always have a charm as a winter-flowering subject. Mr. F. Williams, gardener to Louis Tillet, Esq., M.P., Catton, Norwich, scored for pot Salvia, Primulas, and Parsley.

Mr. W. Allan, Gunton, was prominent as a first-prize winner for Grapes and Pears, whilst for Apples and vegetables of many sorts, Mr. G. Davison of Westwick House Gardens, was very noticeable with "firsts" on his exhibits. Many other prominent local horticulturists sent of their best and made the show most interesting.

The trade growers, too, added greatly to the attractions of the show. Messrs. Daniels Brothers, Limited, with flowers, fruits, and vegetables, the latter from their well-known seeds, had a most effective arrangement, which did this firm great credit. Hobbies, Limited, Dereham, made a speciality of Chrysanthemums of the best recent varieties suitable for all purposes, whether for large blooms, small blooms, or for the market. Mrs. C. Beckett, a new late white, will be sure to become popular. Cut Roses for outdoors were delightful for so late in the season. Mr. R. C. Notcutt, Woodbridge, had a stand of mixed flowers and fruits, and Mr. W. Seabrook, Chelmsford, had a stand of Apples; the fruits were all from young dwarf trees.

ECCLES AND PENDLETON SHOW.

THE nineteenth annual exhibition was held in the Town Hall on the 10th and 11th inst., and, as usual, was well supported by exhibitors. For nine and six large-flowering, six Japanese, and three Pompon Chrysanthemums in pots, Mr. J. Warton was first. Other winners were Mr. J. Ashley, gardener to Lady A. de Trafford, for three single-flowering specimens; and Mr. W. Elkin, gardener to Mrs. Agnew, for three plants not disbudded.

Cut blooms were shown largely, and in the principal class, for twelve incurved and twelve Japanese, last year's winner—Mr. J. Stoney, gardener to F. H. Gossage, Esq., Woolton, Liverpool—was first.

For twenty-four blooms, distinct—six each of incurved, Japanese, reflexed, and Anemone—Mr. R. Croft, gardener to W. Imrie, Esq., Mossley Hill, Liverpool, won the first prize. For twelve distinct incurved and twelve Japanese Mr. J. Stoney was first. For twelve blooms, six incurved and six Japanese, Mr. R. Croft won. For eighteen large-flowered in vases, three of a variety, Mr. J. Quinn, gardener to W. S. Boddington, Esq., was first.

In the amateur classes for Chrysanthemums in pots the first prizewinners were the Rev. T. Calloway and Messrs. E. E. Slater and W. A. Middleton. For eighteen cut flowers the silver challenge cup presented by Mrs. Agnew was easily secured by Mr. W. Wooliams, who also was first in five other classes.

Some fine Palms were staged, not for competition, by Mrs. Agnew, and foliage plants by Mr. Stewart Garratt. Messrs. Dickson, Brown, and Tait, Manchester, had a pleasing bank of Begonias, Palms, and Ferns. Messrs. Dickson and Robinson had a display of Potatoes.

BUSH HILL PARK CHRYSANTHEMUM SHOW.

THIS was not an extensive show, yet there were some remarkably fine blooms shown. The groups were also very good. The finest blooms shown in the class for flowers in vases, four varieties, three blooms of each, were disqualified, owing to the foliage having been taken off. No first prize was awarded. The second prize went to

Mr. W. J. Taylor, gardener to A. D. Fort, Esq., Slades Hill.

For eighteen Japanese blooms, Mr. A. Smith, gardener to Colonel H. F. Bowles, M.P., who was disqualified in the above class, took first with splendid blooms.

For twelve blooms, incurved, the first prize went to Mr. C. May, gardener to Dr. Sequira, Bush Hill Park; second, Mr. W. J. Taylor, who took the first prize for one bloom, the variety being Hanwell Glory. For six blooms, one variety, Mr. H. Smith was first with very large blooms of Mr. F. S. Vallis, and in this stand he also secured first prize for the best individual Japanese bloom.

In the class for twelve vases, three blooms in each, Mr. F. Stiles, Forty Hill, was first. For six Anemone-flowered varieties Mr. F. Roddis, Leighton Road, was first; second, Mr. J. Llewellyn, Morley Hill. For six bunches of singles Mr. F. C. Ford, Bush Hill Park, was first.

In the class for five specimen blooms, in vase with foliage, Mr. F. Stiles was first. He also was first for twelve Japanese blooms; in this stand was the best Japanese bloom in the division. In the class for six Japanese blooms Mr. F. J. Ford was first.

In the open class for a group of plants, Mr. F. Stiles was first with plants of very good quality; second, Mr. F. J. Ford, Bush Hill Park. In the smaller groups, Mr. Stiles was again first, and also for two bush plants; second, Mr. W. Bird, Lavender Hill.

There were a good many exhibits in the amateur classes, and vegetables were well shown.

MAIDENHEAD CHRYSANTHEMUM SHOW.

THERE has never been in Maidenhead a finer show of Chrysanthemums than that recently held. The centre of attraction was the open class (48 Japanese blooms, not less than 24 varieties, and not more than two of one kind). In addition to the first prize of £3 to the successful gardener, the Maidenhead Chrysanthemum Society's Challenge Cup, value 15 guineas, was offered, to give an impetus to the competition. It had been won two years in succession by Mr. W. Hammond, gardener to Mrs. Lewis-Hill, Woodside, Maidenhead, and as it became the property of the person winning it three years out of five, the contest this year was particularly keen and interesting. There were five entries, and the result was a third successive win for Mr. Hammond, with 48 of the finest blooms ever seen at this show. Mr. Hammond was a very successful competitor, since he secured ten first and two second prizes with his twelve exhibits. The groups of Chrysanthemums were very striking, notably those of Mr. Howard and Mr. Richardson. In the fruit and vegetable classes the competition was fairly keen. The collections of vegetables were very fine, and were inspected with interest by all who visited the gallery.

There were, as usual, some capital displays not in competition. Pride of place must be given to Mr. W. Broughton, Norfolk Road Nursery, an inspection of whose very striking exhibit amply repaid a visit to the show, and was voted as one of the best ever seen in Maidenhead. Bamboo stands of fine exhibition Chrysanthemums were used as a background. The centre stand was filled with the new white seedling, Mrs. Broughton, which obtained a card of commendation at the recent Palace Show.

LIVERPOOL HORTICULTURAL ASSOCIATION.

THE twenty-sixth autumn show of this society was held in St. George's Hall on the 15th and 16th ult. The entries were slightly fewer than last year, but for quality it fully upheld its high position.

For four large-flowered Chrysanthemums in pots, trained, Mr. T. Hitchman, gardener to Arthur Earle, Esq., was first with well-bloomed plants. For three single-flowered, trained, Mr. W. Wilson, gardener to Harold Cunningham, Esq., staged magnificent models.

For six naturally-grown plants, Mr. G. Osborne, gardener to Dr. Cooke, had the best.

For a group of Chrysanthemums, Mr. J. Bracegirdle, gardener to W. H. Watts, Esq., was first.

CUT BLOOMS.

In the cup class for forty-eight blooms, distinct, the first prize, being the society's silver challenge vase and ten guineas, was won by Mr. W. Higgs, gardener to J. B. Hankey, Esq., Leatherhead, in which his incurved varieties were very fine; second, Mr. J. Davies, gardener to E. Ellis, Esq.; third, Mr. G. Haigh, gardener to Sir W. H. Tate, Bart., with possibly the best Japanese in the show.

For eighteen incurved, distinct, Mr. C. Osborne, gardener to Dr. Cooke, was first. For twelve incurved, distinct, Mr. R. Croft, gardener to W. Imrie, Esq., was first.

Eighteen Japanese, distinct: First, Mr. H. Rutter, gardener to Mrs. E. P. Smith. Twelve Japanese, distinct: First, Mr. James Clarke, gardener to Thomas Clarke, Esq. For six vases of single flowers, Mr. J. Stoney, gardener to F. H. Gossage, Esq., won. The most tastefully-arranged dinner-table was shown by Mr. H. McFall, gardener to Mrs. Harding. For six vases, Japanese, Mr. G. Smith, gardener to P. V. Churton, Esq., was first.

FRUIT.

For six dishes of fruit, distinct, Mr. J. Skitt, gardener to Mrs. Bright, was first. For two bunches of Black Alicante, Mr. J. Barker, gardener to J. W. Raynes, Esq., won, and for two any other black variety, Mr. James Richard, gardener to T. B. Kendall, Esq., was first. For two bunches of White Muscats, Mr. J. Skitt, was first. For two bunches, any other white, Mr. W. Wilson was first. For four bunches, two black and two white, Mr. J. Skitt, was first.

Mr. H. Reynolds, Mr. J. Williams, Mr. G. Hammond, Mr. J. Lee, and Mr. W. Mackerall were other prize-winners in the fruit classes.

NON-COMPETITIVE.

As usual, this section greatly enhanced the beauty and interest of the show. Awards of merit were granted to Mr. C. A. Young, West Derby, for Carnations; Messrs. J. Cowan and Co., Gateacre, a group of Orchids; Messrs. Charlesworth and Co., Bradford, collection of Orchids; Messrs. Dicksons, Chester, for fruit; Messrs. Fishlock Brothers for cut flowers; Mr. John Robson for Carnations; Messrs. R. P. Ker and Sons, Aigburth, for Cyclamen and Begonias; Mr. Norman Davis, Framfield, for cut Chrysanthemums; Messrs. Thomas Davies and Co., Wavertree; Mr. W. Rowlands, Childwall; Messrs. Alex. Dickson and Sons, Newtownards, for hardy fruits; King's Acre Nursery Company, Hereford, for Apples and Pears; and Messrs. Wells and Co. for cut Chrysanthemums.

As usual, the direction of affairs was under the control of Mr. T. Foster (chairman) and Mr. H. Sadler (secretary), and gave every satisfaction.

PLYMOUTH AND DISTRICT.

BRANCH OF THE BRITISH GARDENERS' ASSOCIATION. At the Corn Exchange on Saturday, the 18th ult., Mr. T. Chalace, of the Plempton Nurseries, in the chair, Mr. W. G. Edwards, gardener to Colonel Gore, South Wembury House, gave a very practical paper on "Some of the Mistakes that are often made in Potting, Watering, and Ventilating," the lecturer pressing home to the younger members the necessity of their studying plant life as a means of becoming better acquainted with the requirements of their plants, also the cracking of their pots and the misuse of the watering-can. The lecturer illustrated some of the practical uses of the potting stick, as well as the staking of plants in pots.

Sale of gardening books.—Messrs. Sotheby, Wilkinson, and Hodge held a sale, commencing on Monday last, of the valuable library of botanical, horticultural, and other books, the property of the late Mr. William Paul of Waltham Cross. The following were some of the prices obtained the first day: Curtis's *Botanical Magazine*, from the commencement in 1787 to 1905, £85; Edward's "Botanical Register of Exotic Plants," 1815-47, £33; "Les Roses" (P. J. Redouté), 1817-24, £30; Loddige's "Botanical Cabinet," 1817-33, £26; "The Grete Herball," 1526, £26; "Roses" (H. C. Andrews), 1805, £14 5s.; "Roses" (Miss Mary Lawrence), 1796 97, £11 5s.; "The Botanist's Repository," 1797, £10; "Fragments on the Theory and Practice of Landscape Gardening" (H. & J. A. Repton), 1816, £9 5s.; "The Herefordshire Pomona," 1876-85, £7 5s.

Exhibition of Colonial Fruit.—The Royal Horticultural Society will hold a Colonial fruit show on Tuesday and Wednesday next, the 5th and 6th inst. The date has been specially selected with a view to showing the fruits and vegetables from the Dominion of Canada and from the West Indies in the greatest possible perfection. There will be a fine display of all the principal varieties of British Columbian Apples and Pears. The exhibitors from this part of our Empire will number twenty private individuals and firms, and although this is the first shipment of any size to London from British Columbia, the fruit has already arrived in excellent condition. It is also hoped that Nova Scotia and other provinces will be represented. The society has also issued a schedule for an exhibition of both home and colonial bottled and preserved fruits and vegetables to be held on the same date. Mr. C. Herman Senn will lecture at 3 p.m. on the first day of the exhibition (Tuesday) on "The Crystallisation of Fruit and Flowers," and on Wednesday Mr. R. M. Palmer, of Victoria, B.C., will deliver an address, illustrated by lantern slides, on "The Fruits of British Columbia." The exhibition will open at 2 p.m. on the first day, and at 10 a.m. on the second, and will close at 6 p.m. on both days. No entrance fee or charge for space is made, and tabling is also provided free of expense. If desired any produce may be consigned direct to the society, and it will be stored in the cellars at Vincent Square and staged by the society's officials, but the society cannot undertake to repack and return any exhibits. Medals and other prizes are offered by the council in each class. Copies of the schedule and other particulars can be obtained on application to the secretary of the Royal Horticultural Society, Vincent Square, Westminster, S.W.

* * * The Yearly Subscription to THE GARDEN is: Inland, 6s. 6d.; Foreign, 8s. 9d.

THE GARDEN.

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DECEMBER 9, 1905.

USE OF NORTH WALLS.

NOT many years ago there prevailed an opinion that the Morello Cherry and the Currant were the only fruits that could be induced to succeed on north walls. In many old gardens it was by no means unusual to find these walls partially clothed with decrepit fruit trees, and, judging from their forlorn appearance, it was quite certain that anything approaching the shadow of a crop of fruit was quite beside the question. If we enquired into their antecedents we were told the fruit they had produced within the memory of the oldest inhabitant had not paid for the pruning of the trees, but having been found there—upon the principle that a patchwork of foliage was better than bare bricks—these old stagers had been allowed to remain. Could we have made an examination of the borders, they would have been found wet, and without drainage; whilst Pears on the Pear stock, with roots the thickness of one's arm, might be drawing their supply of aqueous food from marl or clay some 4 feet or 5 feet beneath the surface. To make matters worse, the walls, some 2 feet in thickness, with coping sloping to the north, had been for half a century or more depositing every drop of water that fell upon them, first upon the wood and foliage, then upon the cold clay, for want of a more suitable name, called the border.

This is no imaginary picture, for twice in the writer's lifetime trees in the condition here described have been placed at his disposal. Renovation or resuscitation was simply out of the question, but something in this age of progress must be done. In each case we had the run of good loam; in the last, old lime and brick rubbish were abundant. A complete clearance of the trees to the fire-heap was the first operation; then followed the cleansing and pointing of the walls, the removal of the clay being allowed to stand over until the following winter. This—6 feet in width and 2 feet in depth—was removed bodily to the open quarters, where it was burned with rough wood for future use. Drain-pipes laid in a trench a few inches deeper than the bottom of the area were carried the whole length of the borders, and we were ready for building up again.

Allowing the roots of the next set of trees to descend through the drainage being no part of our programme, we did not lay down concrete, but having bank-screened the rubble, a foot of the roughest formed the drainage, the finer particles being reserved for mixing with the loam. Rough sods placed Grass-side downwards raised the structure to within 9 inches of the surface of the old border, and upon this 21 inches of compost—pure calcareous loam and at least one-fourth of rubble—gave an elevation of a clear foot above the ground line. In course of time, rather late in the spring, the compost having settled, young trees were planted, but instead of taking out pits for the roots they were placed on the surface, mounded over with a few inches of loam, and left unnailed the first season. One wall was planted with sweet Cherries, another with Morellos, a third with Currants, and the fourth with Plums and Pears. All grew well, and not only have they paid for the labour expended upon them, but many of the trees produce excellent crops of fruit, when, bitten by spring frosts, their fellows upon warm, sunny aspects fail.

Of sweet Cherries which have done best, the old May Duke, Governor Wood, Bigarreau Napoleon, Elton, and Black Eagle may be mentioned. Of Pears, Williams' Bon Chrétien is not only a sure cropper, but coming in late it prolongs the season, and the flavour is equal to the best from pyramids and bushes. Amongst Plums, Jefferson's, Coe's Golden Drop, the old Orleans, Drap d'Or, Victoria, Sharp's Emperor, and Belgian Purple have proved satisfactory, whilst Washington and Impératrice have failed. When fruit trees are planted in raised borders against north walls, their successful management may be summed up in a few words. First, they should be lifted and replanted again on the surface at the end of the second year, and the roots, well shortened and relaid in a horizontal position, should never be allowed to extend beyond the outside margin of the drainage; second, they should be planted a good distance apart to allow for full extension and thin training of the shoots, root-lifting being the unvarying remedy whenever the trees show signs of too much vigour. May Duke Cherries will stand spur-pruning, but the others do best and show least disposition to gumming when the main

branches are thinly trained, and the young wood, after the June pinching, is laid in full length upon the principle followed with Morellos. The latter, when in full bearing, will take liberal mulches of manure and an occasional soaking of water. Pears on the Quince also require manurial dressings and water in dry seasons. Plums and sweet Cherries do not require manure; indeed, they do best without it, but they enjoy an annual top-dressing of burnt refuse and old lime rubble. Last, but not least important, they must be kept free from insects, not only by dipping and syringing with diluted Tobacco water in the early summer, but also, as a preventive, by frequent washing with soap-suds from the laundry throughout the autumn and winter.

POTATO LEAF-CURL.

THE subject of Potato leaf-curl was discussed at the conference held in connexion with the National Potato Society's recent exhibition. On that occasion Mr. C. Foster, University College, Reading, advocated the planting of unripe or immature tubers, and Mr. Sutton supported this recommendation, stating that his firm in their trials had found advantages in the use of unripe seed. This seems so contradictory to established principles that it would be interesting to know what the result would be if immature tubers were planted from year to year. Although this matter has apparently been proved by trials, it would be interesting to hear more about it. Accidental circumstances may have been favourable where the immature tubers were planted. After all, when we find that a fine crop of tubers can be grown from cuttings it would seem that the tuber itself was only an agent for the preservation of the embryo bud during the winter, and that as soon as roots are produced from the sprout the latter is entirely independent of the old tuber. Like all other subjects, the better the stock the stronger will be the progeny, and for this reason it seems unreasonable to expect to improve in Potato culture by starting with immature tubers, which must necessarily mean weakened stock.

It was stated that the Scotch growers had derived benefit from the planting of unripe tubers. We have it as a fact beyond dispute that Potatoes coming from Scotland almost invariably cook well. This I have always attributed to two reasons—first, that they are not dug until ripe (though perhaps the haulm may be green); and, secondly, they rarely make a second growth, as is so often the case in England. English-grown Potatoes

for early markets are dug before they are properly ripened, hence they do not cook well. I have proved this matter beyond doubt. I can understand that tubers which have been thoroughly dried are more likely to foster fungoid diseases than those which have not been so much exposed, yet the question of planting unripe tubers seems so contradictory to the usual experience that further discussion on the matter would be interesting. We used always to grow the Old Ashleaf specially for seed; we were able to retain only the largest for our own planting, yet our seed was always first-rate and sought after. Was it because it was grown from the large tubers only, and produced better results than would have been obtained from seed tubers grown from smaller samples?

A. H. L.

PRIZES FOR GARDENERS. DECEMBER.

TABLE DECORATION.

A First Prize of FOUR GUINEAS,

A Second Prize of TWO GUINEAS,

A Third Prize of ONE GUINEA,

And a Fourth Prize of HALF-A-GUINEA

are offered for the best essays on "Table Decoration."

The essay must not exceed 1,500 words; it must be written on one side of the paper only, and be enclosed in an envelope marked "Competition," addressed to "The Editor of THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C." The essays must reach this office not later than January 6. Both amateur and professional gardeners may compete. The name and address of the competitor must be written upon the MS., and not upon a separate piece of paper. The Editor cannot undertake to return the MSS. of unsuccessful competitors.

COLOURED PLATE.

PLATE 1238.

NEW PEACH PEREGRINE.

FOR many years we have been in possession of a great wealth of excellent varieties of Peaches, but no one a few years ago would have thought a new variety of such merit as Peregrine possible to produce. Yet recently we have been favoured, not only with one variety worthy of holding such a position, but I think I may claim this merit for three, namely, Duchess of Cornwall, Peregrine, and Late Devonian. It so happens also that the three new varieties I have named do not clash with one another in any way, as the first named is first early, the second midseason, and the third late, making their advent even of greater importance than would otherwise be the case. They have each been exhibited several times before the fruit committee of the Royal Horticultural Society, and each has been recognised by an award—Late Devonian and Peregrine with first-class certificates, and Duchess of Cornwall an award of merit. I have no doubt that before many years are over the varieties named will find their way into every garden where Peaches are grown. These remarks are intended more particularly to direct attention to the merits of the variety shown in the coloured plate—Peregrine.

Those readers of THE GARDEN who have had the privilege of visiting the Temple show during the past two or three years cannot fail to have noticed this variety in fruit in the collection of fruit trees in pots exhibited by Messrs. Rivers and Son of Sawbridge-worth. The variety was decidedly conspicuous by the weight of the crop it was carrying, the large size of the fruits, and its uncommonly brilliant colouring. I have not had an opportunity of growing the variety myself, but I have seen it exhibited on many occasions, and have tasted the fruit several times. Moreover, I have had an opportunity of discussing its merits with many of those who have grown it. All speak in the highest terms of its good qualities. Not only does the variety possess a robust constitution and is a consistently heavy bearer, but the fruit is large and of handsome appearance, the colour on the sunny side being a highly brilliant crimson. The flavour also is delicious. Although a midseason variety, I am told by those who have tried it that it forces exceedingly well, and that a better variety to follow in succession to the Duchess of Cornwall or any other first early variety is impossible to find.

OWEN THOMAS.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

December 13. — National Chrysanthemum Society's Exhibition of Market-grown Chrysanthemums in Covent Garden.

December 19. — Annual meeting of the National Dahlia Society, Hotel Windsor, Victoria Street, 2 45 p.m.

"The Garden" calendar. — The Editor of THE GARDEN would be greatly obliged if secretaries of gardening societies would kindly send the dates of their meetings and exhibitions to be held during 1906, so that he may insert them in THE GARDEN calendar of horticultural events, which will be published with the first issue in the new year.

British Gardeners' Association.

A meeting of the executive council of this association was held at the Royal Horticultural Hall, Westminster, on the 21st ult. Forty-seven new members were elected, bringing the total up to 797, while the application of one candidate was declined. To enable owners of gardens and others interested in horticulture to show their sympathy with the association, it has been decided to admit honorary members at an annual subscription of 10s. 6d. Dr. Maxwell T. Masters, F.R.S., &c., Mr. H. G. Cove, and Mr. T. G. Baker, nurseryman, Wolverhampton, were unanimously elected honorary members. The rules of the association are now in type, with the names and addresses of all the members, the branches and their secretaries; and the secretary would be glad to receive early intimation as to any change of address, &c., so that the first published list may be as complete and as accurate as possible. — J. WEATHERS, Secretary, Talbot Villa, Isleworth, W.

Royal Botanic Society's subscription.

—A meeting was held recently to consider whether the annual subscription should be raised from two guineas to three guineas; the Fellows had been previously communicated with, and the replies in favour of raising the subscription were in the majority. The ballot having been closed the scrutineers' report was read, and showed that 175 Fellows had voted, 131 in favour of the proposal and 44 against. The motion was therefore lost by one vote, for, under a rule of the society, a majority of three-fourths is necessary to carry a resolution.

Potato acreage in Great Britain.

According to the returns issued by the Board of Agriculture and Fisheries, 3,762,706 tons of Potatoes were produced in Great Britain in 1905 on 608,473 acres; in 1904 the produce was 3,588,254 from 570,209 acres. Thus the average estimated yield per acre in 1905 was 6.18, and in 1904 6.29 tons. The average yield per acre of the ten years from 1895 to 1904 is estimated at 5.83 tons.

Arbor Day at Eynsford.—Arbor Day was recently celebrated at Eynsford in Kent with much enthusiasm. This interesting annual event again proved to be most successful. Tree-planting commenced in various parts of the village in the morning under the supervision of Mr. Henry Cannell and Mr. James Lawson, of the Horticultural College, Swanley. Ornamental as well as forest trees were planted; and on the site of the old Eynsford stocks in the centre of the village was planted a silver birch.

Iris Vartani in London.—I send you with this letter a sketch my mother, Lady Scott, has done of a small Iris that I do not think is very well known; at least its virtues as a London window plant are little recognised. I planted four bulbs at the beginning of October in a well-drained pot in sandy soil. It has stood inside a south-west window on the window-ledge. The first flower came out the last day of October, barely a month from planting. It was quickly followed by a second from the same bulb. Now there are two out from the second and third bulb, and the fourth is evidently going to be a little slower. It is a delicate Wistaria blue, and has a sweet scent. The flowers last in bloom six or seven days. They open extraordinarily fast. On Friday morning we watched one of those now flowering open. As we finished breakfast a sunbeam fell on the closed bud. My husband and I stood by and watched it slowly unfold its petals from the time it parted in a little threefold crack until the falls spread out and turned down. It took about fifteen minutes. Our flat is in Battersea, and we get little sun. Iris alata is following on well. Reticulata is about 1 inch high, and I have several more that look promising. — LILIAN ALCOCK, 25, Norfolk Mansions, S.W.

Two good Peas.—Referring to Mr. H. Jackson's note under the above title in THE GARDEN of October 28, I am not mistaken in the date of picking. I sowed on January 8 and picked my first on April 5, 1905. As Mr. Jackson only lives a mile from the said garden, if it is not asking too much perhaps in his spare time he would not mind walking that mile, and I should only be too happy to show him the ground and on what soil they were grown. I may add that if the weather is warm and all goes well I hope to pick earlier next year. It may be also interesting to you to know that I have Sweet Peas at present in my garden 6 inches above ground, which will stand the winter and bloom in April.—W. Cox, The Hermitage, Effingham, Surrey.

A good winter Turnip.—On page 335 a note on the above was inadvertently left over from August, and being published at this date may appear misleading, so that I ask you to kindly insert this note to explain the error. The winter Turnip I referred to should be sown early in August for a winter supply. The new yellow Turnip is invaluable for supplies at this season and later. Though for a few weeks there will be plenty of good white Turnips, there is a short supply of good solid roots later on. In February or March the yellow-fleshed roots of the new Yellow Six Week are most valuable. It is a quick grower, remarkably hardy, keeps well, and in a well-drained soil winters well in its growing quarters. The yellow-fleshed Turnips are so little grown in the south or western part of the country that I sent the note at page 335 to prove their value.—G. WYTHES.



PEACH PEREGRINE.

Too-much-alike Potatoes.—When varieties run into several hundreds, the majority being of white skins, it is no matter for surprise if out of so many there should be a considerable number very much alike. That feature has during the past few years become even more marked, for it would be easy to name twenty high-class or popular varieties of which, if the tubers were set up separately and the names withheld, hardly anyone could rename them as before. This is due to the practice of raisers in either using Up-to-Date or some of its progeny as a parent, and thus reproducing in each direction almost if not quite the same varieties. The old distinctions of round and kidney are practically destroyed, as the modern varieties produce round, flat and long, and kidney-shaped indiscriminately. Indeed, we often see a variety long kidney-shaped from one soil, quite round from another soil. So much alike also are these varieties in top growth that even in that case distinctions fail. There is no help for this trouble or sameness, but it leads to much uncertainty. However, as a solatium we have many really splendid croppers.—A. D.

Japanese Chrysanthemum British Empire.—This handsome exhibition Japanese variety promises well. As exhibited before the floral committee of the National Chrysanthemum Society quite recently the blooms were large and attractive, and gave one the impression of coming well from a late crown bud selection. Mr. Davis rightly thinks a great deal of this fine novelty; indeed, he regards it as one of the very best, if not the best, novelty of the season. Suffice it to say, it is a good thing, as succeeding seasons will doubtless prove. The flowers belong to the Japanese reflexed section, and have long florets of medium width. The colour is orange yellow overlaid and tinted reddish chestnut. The National Chrysanthemum Society gave this variety a first-class certificate.—D. B. C.

Chironia exifera.—Few plants have increased in popularity during the past few years so much as the above species. In several gardens batches of this Chironia are now grown, and a good display has been made at the Royal Gardens, Windsor, during the present year. It is a very pretty species, having coral-pink flowers, with yellow anthers, and a prominent bent style, such as is seen in the genus *Exacum*; in fact, these two genera are so much alike that some plants formerly included in the genus *Chironia* are now placed under *Exacum*. Southern Africa is the home of all the *Chironias*, which belong to the natural order *Gentianaceae*. The species under notice is a soft-wooded greenhouse perennial, attaining in its first year about 15 inches in height, but older plants may be 2 inches or so taller. Cuttings taken in late spring strike very easily, and will form flowering plants for next season. Through the summer and autumn months, and even during the winter, this plant will continue to produce its welcome little flowers. Coming from South Africa it requires temperate treatment, and very little moisture during this season. It is synonymous with *Chironia linoides*, meaning Flax-like, owing to its habit and linear foliage.—H. C.

Memorial to the late Dean Hole. A final appeal is now made to all those members of the National Rose Society who have not yet promised contributions to the memorial to the late president. The sum raised it is proposed to invest in the names of trustees appointed by the National Rose Society, who, from the interest thereof, shall make awards of merit as the occasion may arise to such persons who by cultural skill, research, literary work, or in any other way than by exhibits (save in exceptional circumstances), have, in the opinion of the trustees, confirmed by the National Rose Society, done something for the advancement of the Rose worthy of special recognition. The awards will

take the form of a grant of money or of a medal, and will be made irrespective of nationality. In other words, the application of the fund will not be confined to members of the National Rose Society—it will be international. Subscriptions may be sent either to the hon. secretary, Mr. Edward Mawley, Rosebank, Berkhamsted, Herts, or to the hon. treasurer, Mr. H. E. Molyneux, 80, Cannon Street, London, E.C. The fund will be finally closed on January 15, 1906.

Chrysanthemum Ladysmith is a very free-flowering single variety; the blossoms are a very pretty shade of rose-pink, with the yellow stamens showing conspicuously in the centre. The large conservatory in the Botanic Gardens, Regent's Park, has been very bright during the last few weeks, and chiefly owing to the large groups of this *Chrysanthemum*. Mr. E. F. Hawes, superintendent of the gardens, has beautiful masses of it in many parts of the conservatory. The pots are plunged in the soil of the beds, and so appear almost as if they were growing naturally in their present positions. All who want a *Chrysanthemum* that flowers so freely that the plant becomes a mass of bloom, and like a rose-pink single variety, should certainly grow the variety *Ladysmith*. Another interesting feature in the Botanic Gardens is the *Victoria Regia* Water Lily. It has flowered this year in a most remarkable fashion. The plants commenced to bloom on June 12, and continued to do so until September 5. On an average there was a fresh flower every three days, and each one lasted two days, so that between these dates the plants were rarely out of flower. From September 6 there were no flowers for five or six weeks; but early in November flowers again appeared, and a short time ago blooms were still opening. Altogether more than three dozen flowers have opened in the Water Lily house. This possibly constitutes a record; in any case it is remarkable in a garden within such a short distance of Charing Cross.

Dædalacanthus parvus.—The order *Acanthaceae* contains a number of beautiful flowering plants. Many are especially valuable, as they brighten our glass structures during winter, and, generally speaking, they are all easily grown. The *Dædalacanthus* just mentioned forms no exception to the rule, for it conforms to ordinary treatment, and blooms during the late autumn and early winter months. Four years ago it was given an award of merit by the Royal Horticultural Society as *Dædalacanthus Wattii*, under which name it was distributed, but the specific title is now changed to that of *parvus*. With the continual changes in nomenclature that are taking place many plants formerly known as *Eranthemums* are now included in the just-named genus, even *Eranthemum pulchellum* being now known as *Dædalacanthus nervosus*. To this popular plant *D. parvus* bears a certain resemblance, but it differs in many well-marked features, as it blooms when little more than a foot high, and the flowers, which are in short spikes, are about an inch across and of a deep bluish purple tint. It is easily propagated.—T.

Tricuspidaria dependens.—We have been long familiar with a beautiful crimson-flowered Chilean shrub, either under the above name and that of *Tricuspidaria hexapetala*, or *Crinodendron hookerianum*, which last was applied to it when first distributed by Messrs. Veitch about 25 years ago. Judging from an article by Mr. Watson of Kew, in a recent issue of the *Gardeners' Chronicle*, we have hitherto been on the wrong track, and our old favourite is entitled to a fourth name, viz., *Tricuspidaria lanceolata*. It appears that when Mr. H. J. Elwes was travelling in Chili a few years ago he sent many things to Kew, among them seeds of a white-flowered shrub, which bloomed for the first time this year in the Temperate House at Kew, and on careful comparison with the herbarium specimens, it was conclusively proved to be the true

Tricuspidaria dependens, the plant so long bearing the above name being *T. lanceolata*. It is questionable if the new comer will prove as handsome as the other, for the old one is indeed remarkably ornamental when at its best. In its native state *T. lanceolata* is said to reach a height of 10 feet or more; but in this country it will flower freely when not more than 3 feet high. The leaves, which are about 3 inches long, are harsh in texture and wrinkled at the edges. The flowers are urn-shaped, and bright crimson in colour. A notable feature is the length of time the buds take to develop, and, being borne on unusually long stalks, they hang from the branches like Cherries.—T.

American Chrysanthemums at the Paris Show.—Although most of the American seedlings have long since passed out of English collections there seem to be more of them in the hands of the French growers. At the Paris Show there were some very good blooms of American seedlings; none, of course, very new, but chiefly those that we knew here ten to fifteen years ago. The Egyptian, a dull-coloured, coarse-looking, rough incurved, was several times seen in groups at Paris, a fact we had some difficulty in understanding, for we should hardly have considered such a variety in accordance with French taste. W. Falconer, a rosy pink, hairy variety, raised in the States, was also shown. William Tricker, pretty bright pink, and the white *Niveus* also. Mrs. H. Robinson, a large white incurved Japanese, was frequently represented in many groups. Eda Prass, once well known in England, was also shown well. Colonel W. B. Smith and Modeste complete the list.—C. H. P.

Chrysanthemums at Oakhurst, Ealing.—At this, the residence of H. W. Peal, Esq., one of the best-kept all-round gardens in this pretty and still-growing suburb, a collection of *Chrysanthemums* is well grown; indeed, when it is said that Mr. Charles Edwards, the capable head-gardener here, has always come well to the front at past local exhibitions, sufficient has been said to indicate superiority of culture. About 300 plants in 150 varieties, both incurved and Japanese, are represented. It may prove of practical service to amateurs and others to note some of the best flowers, commencing with the Japanese section. *Mafeking Hero*, a grand flower, rich dark crimson self; Mr. F. S. Vallis, a soft citron yellow; Mrs. F. W. Vallis, a very fine crimson flower, with reflexed curling florets 8 inches in length. Here we have blooms 10 inches in depth and of good width. *Bessie Godfrey*, beautiful canary-yellow, in way of Mme. Von André; *Duchess of Sutherland*, intense orange-yellow; *Kimberley*, fine yellow flower of good size and form; Mrs. Barkley, soft rosy mauve, bright silvery reverse; Mme. Paolo Radaelli, very full flower, of fine form and great substance, colour pale rose, tinted yellow; and J. H. Silsbury, a magnificent light crimson flower, shining yellow reverse. This beautiful variety is found to come good from any bud, showing the richest colouring from bud not earlier than the third week in August, the early buds produce blooms of a terra-cotta-red colour. *Godfrey's Pride*, very large flower, carmine-crimson, lighter reverse. A very fine exhibition flower is *General Hutton*, golden yellow, with a slight tint of red; the well-known Mrs. Mease; *Guy Hamilton*, grand white, large size; W. R. Church, another flower of fine size, rosy crimson, shaded amaranth; Miss Alice Byron, a beautiful pure white; Mrs. J. Dunn, the best white that has been introduced since the famous Mme. Carnot, plant of fine robust habit; Lord Ludlow, golden amber; *Beauty of Sussex*, a flower of much refinement, colour silvery rose; J. R. Upton, grand, colour golden yellow, plant of strong habit; *Merstham Yellow*, in way of, but much better than, Mrs. T. W. Pockett. Of the incurved varieties one of the best is *Duchess of Fife*.—Quo.

A beautiful greenhouse shrub.

In the early months of the year there is a great variety of the different Australian Acacias in flower, but at this season the number of species in bloom is small. One, however, well merits a place among the finest greenhouse shrubs for flowering during the late autumn and in early winter. It is *Acacia platyptera*, which is now thickly studded with its globular-shaped tufts of golden blossoms, and when the plant is in good condition a succession is kept up for some time. During its earlier stages this Acacia must be freely stopped to lay the foundation of a bushy specimen, after which it may be allowed, to a great extent, to grow at will. In this way it naturally forms a loose, open bush of a rather upright growth. A very striking feature of this Acacia is that, except during its earliest stages, it possesses neither true leaves nor the leaf-like phyllodes so common in many Australian Acacias, the functions of the leaves being performed by the curious wings which are attached to either side of the stems, and from which the specific name of *platyptera* is derived. These wings are green, and in many cases about half an inch in width. This distinct species is a native of the Swan River district of Australia, and was introduced from thence in 1840. A second species, and a decidedly uncommon one, that flowers at about the same time as *A. platyptera*, is *A. linifolia*. Its flowers are in globular heads, as in most of the others, and pale yellow or cream coloured. In this the phyllodes, popularly termed leaves, are long, narrow, and partially drooping, thus imparting grace and elegance to a well-grown plant. It is not suitable for flowering when small, but when 6 feet to 8 feet high it is very graceful.—H. P.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

DAFFODIL STALKS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In the interesting and instructive notes on the above subject by Mr. J. Duncan Pearson, on page 252 of THE GARDEN, there is ample food for reflection. There are short stalks, long stalks, weak stalks, and disproportionate stalks, all to be found in the older types or forms of *Narcissi*. In the second paragraph Mr. Pearson speaks of "cutting the blooms," and, agreeing with him that length of stem is a matter of importance to either the exhibitor or the market grower, I may be allowed to point out that I never "cut the blooms" at all, but pull them, and in this way an inch, and often much more, is added to the length of stem. It requires only a little practice, when walking through the rows, to slide the right hand down the stalk, and by a sharp, upward pull draw the stem out. It sometimes happens in doing this that 3 inches or 4 inches of the lower portion of the stalk is pulled right out of the bulb, but this underground portion is not of the least value, because of its weakness. Another item materially affecting the length of stem is the gathering of the flowers in the bud state before the stem has fully grown. How much stalk is sacrificed by this method alone is easily traced a week or so later, hence all the greater reason why these shorter-stemmed sorts should be pulled in the manner I have suggested. The length of stem is also much affected not only by soils and by treatment, but in greater degree by annual, biennial, or perennial lifting of the bulbs. For example, *Grande*, three years planted in deeply-dug loamy soil with a heavy layer of fresh and wet cow manure 6 inches below the bulbs at planting time, gave stems upwards of 12 inches long when the buds first inclined to the horizontal position, the bulbs producing the good crop of four flowers

each. The stem of *Emperor*, with similar treatment, reached 2 feet from the ground level. I have measured a few 26½ inches in length, and the 1½-inch wide leaves of similar length. In both instances the increase in the third year was considerable. Very interesting and instructive, too, was the growth of a portion of a bed of the last-named, the bulbs lifted for commercial purposes, and of which the mother bulbs were replanted in about three weeks. The lifted bulbs one may compare to *Narcissus* P. R. Barr for stature as against *Emperor*.

Deep planting, too, has its influence on the stems, and all cultivators of the Daffodil know full well how a bulb deeply trenched in will rise much above its ordinary height when in bloom.

Princes, Sir Watkin, *Emperor*, and *Empress* are instances where the root-fibres retain their vitality in greater or lesser degree from year to year. Not a few of the incomparabilis varieties have root-fibres of prolonged vitality, and a study of this characteristic alone should be a good guide to those requiring varieties for permanent planting. All Daffodil cultivators know full well how tenacious of life are the root-fibres of the older *Poeticus* kinds, in which for present purposes the popular *ornatus* is included. More than this, this section has a tendency to perpetual root-production, and it is this fact that caused me, many years ago, to remark of *N. P. ornatus* "that five minutes out of the ground was more than four minutes too long." On the other hand, those varieties coming nearer to *N. pseudo-Narcissus*, also *N. obvallaris* and others that lose all root-fibres annually, do not give the increased length of stem when permanently planted.

Mr. Pearson has further drawn attention to disproportionate stems, and mentions *Stella superba*. The old May-flowering *Poeticus* is a further instance of this, yet how this may be really turned to good account is well evidenced in the newer race of *Poeticus* kinds raised by Mr. Engleheart. To the market man and those who bunch these *Narcissi* in large quantities for market the shape of the stem is a point of greater importance than the casual observer could possibly imagine. Some of the most tiresome in this respect are the round, smooth-stemmed forms of the double *incomparabilis* and the weak-stemmed *ornatus*. The former continually revolve in the hand of the buncher, and in this way it takes double the time to bunch as those kinds with nearly flat, angled, or ribbed stems. The stems of forced *ornatus* often give much trouble in the same way, and in this respect *ornatus* differs materially from *ornatus* from established plantings in the open. As a forcing variety I believe King Edward VII. will in time supersede *ornatus*, and not only is it much larger, but has a stem in proportion and is apparently not weakened under forcing as is *ornatus*. Not all varieties exhibit this weakened condition of stem when forced, though many have a trick of falling over in a mass if too sharply pushed along in strong heat. Of course, the growth and the basal or ground level of this more particularly has not the soil support or the strengthening influences of light and air as when naturally grown. Even *Golden Spur*, major, and others have a somewhat weak stem under early forcing, and both kinds appear to be of a more succulent nature also, which in a measure may account for it. On the other hand, *N. obvallaris*, *N. Ard Righ*, *N. maximus*, *N. Horsfieldi*, and the old double yellow are instances of good and generally stiff stems in the same circumstances. The first named I regard excellent in stem, as it may be bunched with considerable quickness. The variety *Alert*, one of Mr. Pearson's seedlings from *obvallaris*, has a similar stem to the *Tenby* kind, and this characteristic, as also the ribbed stem, is well shown in the picture of *Alert* at page 253. Three years' planted *Mme. de Graaff* I have had with stems 18 inches and 20 inches long in a well-sheltered position, and where much moisture is present about the roots. Then, again, a moist, genial spring-time as well as root

moisture greatly favours the length of stem in the Daffodil as much as deep planting.

Hampton Hill.

E. H. JENKINS.

CARNATION SUNDRIDGE.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Your correspondent Mr. Arthur Goodwin wishes to know whether any reader of THE GARDEN has tried *Carnation Sundridge*. We have grown it for the past three seasons, and cannot speak too highly of its merits. This year especially it has been exceptionally good. The flowers are almost as large as a *Malmaison*. I would strongly recommend it as one of the best scarlet border Carnations. Mr. Speed of Penrhyn Castle Gardens grows a quantity of it. Mr. Goodwin will find it to be all that Mr. Crump says of it.

Bodorgan, Anglesey.

G. S. JORDAN.

REFUSE OF CARBIDE OF CALCIUM USED IN MAKING ACETYLENE GAS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In answer to the question asked by "Country House," this refuse is said to contain a quantity of lime and also ammonia. If so, it should be a valuable manure for the kitchen garden. I have used it now for four years, but attach more importance to it for its value for killing and driving away the various insects, such as slugs, grubs, &c., which frequently abound in some parts of the garden where it is specially shady or the aspect is north. I find it has no detrimental effect when applied to growing plants, and have tried it on Cabbages, Turnips, Globe Artichokes, and various other things, and have used it freely this season on Canterbury Bells which were badly infected with the leather-jacket grub. However, I much prefer using it on vacant ground in the autumn or early winter, and I have had very satisfactory results. The so-called lime keeps the soil very free from insects for at least two or three seasons, and, where applied three years ago, it is still freely seen in the soil. It should not be used too much on fast growing vegetables for kitchen use in case of an unpleasant flavour. I find crops invariably do excellently after its previous application to the soil. I am much inclined to think that the ammonia evaporates a good deal from long standing in the drainage tank. Our refuse is drained into a large tank, together with the water which is used in cleansing the generators—the latter making it of a more moderate strength. If we wish to use it as liquid it will easily mix by being stirred up, and is then about the thickness of limewash, which it much resembles. The liquid, however, can be taken off, and the lime used separately. If the generators remain for a few hours after the gas is made the liquid, which is very strong and perfectly clear, can be taken off and used without any lime appearing on the soil. It seems equally harmless, too, in a crude state, even to very small seedling plants. I have never heard of an analysis of the contents of the refuse as to its manurial value, but this would certainly be interesting.

Oving House Gardens, Bucks.

G. WHITE.

THE FLORIST'S BIBLIOGRAPHY.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—As the series of contributions under the above heading are now completed, and as it is possible they may be reproduced in another form, I should like to take this opportunity of expressing my thanks to the various friends and readers of THE GARDEN who have offered suggestions and expressed their appreciation of the work. It will be remembered that at the outset I expressly said that, for obvious reasons, it could not be claimed to be an absolutely complete one, although great pains had been taken to make it so as far as possible. No man can know everything, not even an amateur writer in the Horticultural Press. And even if he did, little errors

are likely to creep in and unaccountable omissions take place in the compilation of such a work as I undertook for those gardening friends having some literary interest in floriculture. This is a class that is constantly increasing, and if anyone acquainted with out of the way books or pamphlets, published, as so many of them are, locally, which have escaped my attention, will kindly give me a note of such omissions, every effort shall be made to remedy the defect on a future occasion. I am reminded of this more especially by one or two little books that I have discovered since the MS. was in the Press, were not included. In particular I allude to Mr. Robert Sydenham's "All about Sweet Peas," of which a second edition has already been published, and which will at an early date be reissued in a more revised and complete form. Although only a little booklet of fifty or sixty pages, it contains a good deal of interesting matter to the Sweet Pea grower. There is a general introduction all about the popular favourite, then there are cultural directions headed "How to Grow Sweet Peas," followed by an article on exhibiting, and finally a concise descriptive list of varieties.

C. HARMAN PAYNE.

WINTER-FLOWERING PELARGONIUMS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Your correspondent "A. D.," page 314, writing on the above subject, says the varieties he names are hard to beat. I beg to say this is a mistake. Some of the varieties brought out during the last few years by our leading growers are far in advance of those he mentions, and I give the names of twenty first-class varieties: The Ghost and Snowdon (white), Mrs. C. Pearson, Mrs. G. Cadbury, and Queen of Italy (salmon), Mrs. Williams, Mrs. Brown Potter, and Mrs. Toogood (pink), T. Bevan (scarlet), Scott Turner, Percy Waterer, and Duke of Norfolk (crimson), Princess of Wales, J. M. Barrie, General Wolseley, and Zenobia (cerise), Trilby, Duke of Connaught, and Cyclope (purple and violet), and Prince of Orange (orange).

Hayas.

H. L.

APPLE BISMARCK.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I have seen many reports, amongst them several in recent issues of THE GARDEN, of the remarkably fine Apples that have appeared this season in many parts of the country. The great variety here is Bismarck, the prince of kitchen Apples. Two small bush trees have carried fifty-one fruits, the largest weighs 1½ lb. and is 15½ inches in circumference. Many others are nearly as large, and the remainder a fair sample.

JOHN WALKER.

Fen Place Gardens, Turner's Hill, Sussex.

THE FLOWER GARDEN.

SPRING STAR-FLOWER.

(TRITELEIA UNIFLORA.)

QUITE hardy in the open in warm soils, though a native of Buenos Ayres, is this pretty little plant, which is known also as *Milla uniflora* and *Brodia uniflora*. It should be naturalised largely on grassy banks, where it makes a delightful picture in the early days of April. The accompanying illustration shows it growing in quantity on such a bank at the foot of a great tree in Mr. Howard Fox's charming garden at Rosehill, Falmouth. On page 117, Vol. LX., there appeared a picture of Persian Cyclamens growing in the open in the same garden. These are a few yards distant from the *Triteleias*. As will be seen, the plants, being at the foot of a tree, are partially shaded, but in either shade or

sunshine they grow with equal luxuriance, and, in another Cornish garden, they carpet a very sunny bank with their white star-flowers for 50 yards or more. Though they succeed in borders they are never so beautiful as when naturalised on grassy banks, where they increase with astonishing rapidity. There are two forms, the pure white and the pale porcelain blue, known as *cærulea* or *lilacina*, both of which are beautiful. Though termed *uniflora* two blooms are often borne on one stem. The flowers have a pleasing fragrance, but, as the bruised stems and leaves emit an odour of garlic, the blossoms are unfitted for indoor decoration. They are valuable as pot plants, a number of bulbs in a 7-inch pot entirely hiding it with their drooping foliage, and throwing up from fifty to seventy flower-heads, which expand almost simultaneously.

Treated in this manner they may be had in full bloom in December and January. If grown in saucers of growing sphagnum moss, the plants are very pretty for table decoration. This *Triteleia*, which was introduced seventy years ago, is, unfortunately, absent from numbers of gardens, but its beauty and hardiness render it worthy of a place in all those in the south of England. S. W. F.

CARNATIONS ALL THE YEAR ROUND.

[In Reply to "E. R."]

THE American varieties now take the lead, and by growing a succession of plants, stopped at different periods, they will give a supply the year round. Yet it is during the winter that their value is most appreciated. The best varieties are Lady Bountiful, Lilian Pond, and The Belle, whites; Enchantress, blush; Fair Maid, a deeper shade of blush pink; Floriana, a bright pink; Mrs. T. W. Lawson, cerise; Nelson Fisher, a brighter shade; Flamingo, Adonis, and Christmas Eve are fine scarlets. Old crimsons, Harlowarden, Harry Fenn, and Governor Roosevelt are all good.

Culture.—The chief point is to start with strong, healthy stock. There is a great difference in the shoots taken for cuttings; the short-jointed side shoots, taken when they are about 3 inches or 4 inches long, make the best plants. Put in light, sandy soil, plunged where there is a little bottom-heat and a cool, moist surface they will then root freely. When rooted, pot into 3-inch pots and keep close for a few days only. During the summer and early autumn they will do well in a frame where the lights can be taken off on all favourable occasions, or rather left off, except when we get heavy rains or rough weather. They should be potted on as soon as the roots are well round the pots. If left too long in the smaller

pots they become hard and weak, and the mischief done can never be remedied. Stopped once when they have made a good start, they need no further stopping. Those stopped in May should come into flower early in the autumn.

Malmaison Carnations.—The original blush variety, which has been grown for upwards of forty years, is still one of the best; the pink and rose varieties, which have no other distinctive names, are also most desirable. Nell Gwynne, the best white; H. J. Jones, crimson; Lord Rosebery, crimson-scarlet; Prime Minister, bright scarlet; Mrs. Trelawny, salmon; The Churchwarden, deep scarlet; Thora, blush; Princess of Wales, rose-pink; and Princess May, bright pink, are others. Mrs. Everard Hambro may be added, but is hardly a true Malmaison. The Malmaisons require rather more careful treatment than the



TRITELEIA UNIFLORA IN THE SOUTH OF ENGLAND.

other sorts. In the first place, it is only by layers that most of the sorts can be successfully propagated; this applies most particularly to the original sorts. Later varieties, such as Princess May, H. J. Jones, &c., are more of hybrid origin, and may be propagated from cuttings. They break from the stem and produce small side shoots, but where only the strong shoots are produced it is necessary to layer them, and this should be done as early as possible after they have done flowering. It is from March to June that these flower best, and it is of no use trying to force them into flower during the winter, only distorted flowers, if any, would open. Most growers keep these entirely under glass, but I think they are all the better for being in the open for a time, especially during the early autumn, when we get heavy dews.



ROSA BRUNONII OVER ARCHES IN THE GARDEN OF MR. D'ARCY REEVE, FRIARS, MATFIELD, PADDOCK WOOD.

Border Varieties—Of these chiefly the yellow sorts are most desirable for pot culture, and two year old plants give the best results. Germania still remains a favourite. Miss Audrey Campbell and St. Cecelia are also good; Uriah Pike, crimson; H. J. Cutbush, scarlet; Hayes Scarlet; Ruby Castle, salmon pink; Duchess of Fife, blush pink; Mrs. Nicholson, rose-pink; Cantab, scarlet (sweet scented); Albion and Gloire de Nancy, whites, are others. Mrs. Reynolds Hole, though an old variety, is still the best we have of the apricot shade. Most of the border sorts may be propagated from cuttings, but they are better raised from layers, and they should be grown in the open during the summer and autumn. During the winter they may be kept in a frame, giving plenty of air in mild weather. They should not be taken into the house until February, and then only very little warmth should be given. They come in well to succeed those that have been flowering during the winter. Some of our English perpetual (or winter flowering) varieties are worth attention, e.g., Winter Cheer, Mrs. Leopold de Rothschild, Countess of Warwick, and others of similar habit; though the flowers are smaller, they are very freely produced. With all Carnations the time of flowering depends upon when the plants are started. They cannot be forced into flower; light, air, and sunshine, with just sufficient heat to keep out frost or dry the atmosphere in damp weather, are important items. In the spring, when we get bright weather with cold winds, more heat may be given.

Soil and Potting.—These are very important matters. Use good fibrous yellow loam, with the addition of some leaf-mould, well-rotted stable manure, sand, and a little bone-meal; give good drainage and pot firmly. Much depends upon careful potting. The plants should be fairly moist when they are potted; any found dry should be watered and put aside for a time. The Malmaisons do best in a rather lighter compost, more sand may be used. Many growers use some peat; but this is not necessary unless the loam is heavy. The Malmaisons also require larger pots; but they must have good drainage. The frequent use of

sulphur, to which may be added a little lime, will do much towards preventing rust and spot. Syringing with clear soot water is also beneficial, but this must not be done immediately after using lime or after the flowers begin to open.

A. HEMSLEY.

ORCHIDS.

SOME INTERESTING ORCHIDS.

OF the many Orchids grown in the far-famed Woodlands collection, Cypripediums form perhaps the largest class, and probably the most interesting. There are now in bloom a number of handsome and extremely rare specimens, many of which cannot be found in any other collection. The *C. insigne* and its numerous varieties are well represented, and include specimens of all the varieties procurable that have ever been introduced, there being between 2,000 and 3,000, including nearly 50 yellow varieties of this grand Cypripedium in flower at the present time. The plants entirely fill one house and part of two others. One of the most noteworthy is *C. i. Macfarlanei*, an exceedingly beautiful variety of a soft bright yellow, somewhat deeper in shade than *C. i. Sanderæ*, which it somewhat resembles, but the dorsal sepal is not so broad. *C. i. Measuresæ* is a beautiful variety; the dorsal sepal has a very broad, white border, with just a touch of yellowish green in the centre, and is entirely without spots; the petals are rather longer than usual, while the pouch is particularly dainty. In *C. i. amesianum* we have a lovely flower; the upper portion of the dorsal sepal is pure white, with the lower part green with a brownish shade; the petals are beautifully undulated on the margins, while the lip is a delightful shade of yellow.

A pretty form also is *C. i. woodlandsense*, with the dorsal sepal heavily blotched with brown on a greenish yellow background, and having a pure white margin, but a quite unique feature of this handsome variety is the colour of the pouch, which is almost white. There are

many other fine varieties, such as *magnificum*, *Mabel*, *Edgar Cohen*, &c., but the gem is, undoubtedly, the variety *R. H. Measures*. This is the finest of all the varieties of *C. insigne*; it is now flowering side by side with all the best, including *Clara Measures* and *Harefield Hall*; it closely resembles the latter grand variety, but eclipses it in size and beauty. We must not omit to mention here the *C. i. bohnhoffianum*, which, in its way, is the most charming of all. Its shining, bright chestnut brown blotch covering the lower area of the upper dorsal is surmounted by a pea green rainbow-like band, this being about midway between the dark colouring and the quite white half of the upper part of the flower. It is not only in *insigne* varieties that this valuable collection is notable, as numerous and very handsome species and hybrids form a very strong feature. Amongst the many remarkable kinds are some excellent specimens of plants raised through the agency of *Cypripedium fairieanum*, together with some fine examples of this species. Mr. Measures is exceptionally fortunate in flowering first of all the best variety that we have seen, and now Mr. Measures tells us the last to bloom is much finer than his first.

Turning to other sections of this collection there were in flower plants of *Cattleya labiata*, with immense flowers, sepals and petals, a deep magenta-crimson; also some grand plants of *Cattleya bowringiana* bearing great numbers of rose-purple blossoms. Amongst the hybrids of *Cattleyas* and *Lælias* the number in flower just at the present is not great, but there were fine examples of *Cattleya Mrs. J. W. Whiteley*, with its deep rosy lilac sepals and petals and rich crimson-purple lip, with deep orange disc, also an exquisite flowered *Cattleya Mantini* var. *nobilior*, of which the parents are *C. bowringiana* and *C. aurea*, the aurea being very clearly indicated in the velvety texture of the lip. The sepals and petals resemble more those of *C. bowringiana*. The plants of *Lælia elegans* and varieties for which Mr. Measures' collection is so justly famous were looking remarkably healthy, reflecting great credit on the management.

ARGENTUS.

THE ROSE GARDEN.

ROSA BRUNONII.

THE illustration of the above rambling Rose affords some idea of its great beauty when suitably placed. Here we find a background of trees which makes an excellent contrast to the masses of snowy blossoms. The drooping growths are so natural, imitating the wildings in the hedges, and they afford us a splendid object-lesson in the management of our rambling Roses. Try *Crimson Rambler*, *Aglaia*, *The Garland*, and others in this way and the result is excellent. This class of Rose can never be fully brought out in its native beauty if planted upon a pergola unless the pergola can be viewed from an elevation. The better way would be to plant such Roses where full play can be afforded their pendulous growths, or if planted upon a pergola let this latter be of a disconnected character, or rather a series of arches, then we shall derive the fullest measure of beauty from these glorious Roses.

Rosa Brunonii is identical with *R. himalaica* as far as I can see, both having a rich glaucous foliage; they differ from *R. moschata* in foliage but not in blossom. There is a Rose which flowers in August (*Rosa wichurajana rubra*) that could fittingly be planted to follow *R. Brunonii*. To bring out the full effect of this latter Rose some

masses of scarlet and crimson should be planted beneath. Of these try Marquise de Salisbury, Princesse de Sagan, Cramoisie Supérieure, Fabvier, or the old Crimson China. P.

THE ROSE PERGOLA AT KEW.

MANY of the Roses have made great progress on the pergola since it was completed in its present form early in the year 1901. It is just over 200 yards in length, 13 feet in width, and 9 feet 6 inches in height. Constructed of iron, the uprights are 17 feet apart, connected by chains along the sides and iron rods over the path. When the Roses were first planted two varieties were placed at the base of each upright, the idea being for a moderately strong climber to clothe the upright and a more vigorous variety to climb over the path and along the chains. They are planted in pairs, the two varieties on one side being the same as the two planted immediately opposite.

The illustration shows the last four arches at the north end of the pergola, with the Duches wall in the distance. The variety flowering so freely on the first arch is *Flora*. The large clusters of rosy flesh-coloured flowers are very freely produced. It belongs to the evergreen section, the shiny green foliage remaining on a good part of the winter. A few flowers of the pinkish white Ayrshire variety *Alice Gray* can be seen near the base of the pillars; *Aglaia*, usually called the Yellow Rambler, can be seen at the extreme end, a mass of canary yellow flowers. It is a strong grower, and does not flower much till well established, after which it is yearly a mass of flowers. Altogether between sixty and seventy varieties are represented, these included practically all the most suitable ones in commerce at the planting time. Varieties like *Dorothy Perkins* and *Queen Alexandra* have been added since. To give a list of all the varieties here would read too much like a catalogue. The majority belong to one or other of the following sections: Hybrid China, Musk, evergreen, Ayrshire, Boursault, multiflora (*Polyantha*), *wichuraiana*, *Noisettes*, Hybrid Briar, or vigorous Hybrid Perpetuals or Hybrid Teas like *Reine Olga de Wurtemberg*.

A few climbers are grown besides Roses, such as *Lonicera japonica halleana*, *Tecoma radicans*, *Clematis montana*, *C. Jackmani superba*, and *Wistaria sinensis*. A. OSBORN.

Royal Botanic Gardens, Kew.

JOTTINGS ABOUT ROSES.

A NEW HYBRID ROSE.—In my previous notes I referred to the part which *Rosa lutea* has played during the last few years in the production of new hybrids and varieties. Second only in interest to *Soleil d'Or* is Dr. Muller's Hybrid Briar *Gottfried Keller*, which was distributed at least three or four years ago by Herr Otto Froebel of Zürich, from whose nursery we had that grand *Rugosa* *Conrad Ferdinand Meyer*, which, by the way, is also a seedling of

Dr. Muller's. Dr. Muller is one of the most eminent and skilful Rose hybridists in Europe, and many are the good things in store for rosarians at his establishment at Weingarten in Wurtemberg. As a hybridist his greatest achievements have undoubtedly been obtained with *Rosa lutea*, but so far the only one of these hybrids at present in commerce is the one just named; the remainder have passed into the world-renowned collection of M. J. Gravereaux at L'Hay, near Paris. At present very few people in England seem to have seen *Gottfried Keller*, but I was fortunate enough to see it blooming and thriving well at Cheshunt this summer. The parentage of this remarkable Rose shows a most strange commingling of different groups of Roses. A seedling between the old dark violet-crimson Hybrid Perpetual *Pierre Notting* and the climbing Tea *Mme. Bérard* was crossed with Persian Yellow. The resulting seedling was then crossed with another seedling raised from *Mme. Bérard* and Persian Yellow.

I have to thank Herr Otto Froebel for sending me these particulars. As seen at Cheshunt it is a very strong grower as a maiden, but not so strong as a cut-back. The growth is upright, wood reddish brown, covered with long and very distinct reddish brown thorns, which are hooked and very strong. At Zürich it has proved perfectly hardy in spite of its Tea blood, while in England it has certainly proved a true perpetual. The flowers are almost single—only possessing from seven to ten petals—and are generally produced in clusters of five. They possess a sweet fragrance, and the colouring is most striking—apricot yellow suffused with yellowish red is the nearest description I can give, but this only conveys a poor idea of the remarkably rich and brilliant tones of colour to be seen in this Rose.

To those rosarians who are interested in the efforts of raisers to break new ground I can thoroughly recommend *Gottfried Keller*, and it seems more than likely that for garden decoration its value will be in advance of *Soleil d'Or*. Mr. Walter Ewles, writing in *Flora and Sylva*

for August, "considers it a remarkable Rose hybrid, in which we have the free and half-climbing habit of the Tea Rose and the single flower of a Lady Penzance Briar."

Hybrid Tea Gustav Grünerwald.—In the autumn of 1903 Herr Peter Lambert wrote and recommended several Roses which he said were very fine in his nursery. Among them was the variety that heads this note, *Frau Lilla Rautenstrauch*, and *Königin Carola*, all of which I obtained. Each has proved an acquisition after two years of careful trial, especially *Gustav Grünerwald*, which has so many good qualities from a garden point of view. First of all, it is a capital grower, extremely hardy, floriferous, and a perfect autumnal. In hot weather their colour is an intense yellowish red. The flower is well built, high centred, cup-shaped, and of full size if disbudded. When grown large it is apt to be a little coarse, though it has appeared in many of the first prize boxes at this year's exhibitions. The expanded flowers are of a rich light carmine with a yellow base, and the outside petals are of a lighter shade of colour, sometimes almost a flesh colour. Each petal slightly reflexed, and is notched in a way that I do not ever remember to have observed in any other variety. The wood is stiff, upright, and light green in colour, and although the raiser when sending it out (see *THE GARDEN*, Vol. LXIII., page 48) described it as an almost thornless variety, the wood of my plant is well set with large red thorns. This Rose is an excellent grower, and although I cannot now describe it as free from mildew, there was no sign of this disease on the leaves until about the middle of September. Herr Peter Lambert obtained this fine Rose by crossing the creamy white *Grossherzogin Victoria Melita* (one of the hardiest of the Hybrid Teas) with *Rosa lutea punicea*.

Frau Lilla Rautenstrauch.—This was so recently figured and described in *THE GARDEN* that I need only add that I can endorse all that has been said in its favour. This summer, especially, it has yielded me some exquisitely



ROSES *FLORA* (IN FRONT) AND *THALIA* (IN DISTANCE) OVER ARCHES IN THE ROYAL GARDENS, KEW.

coloured blooms. It is a first-rate autumnal, and even when undisbudded the flowers are of fine shape and substance. Unfortunately, they are inclined to be a little weak in the stalk, hence it is best grown as a half standard. The plant is a strong, bushy grower, with very thorny wood and fine glossy green foliage. I have found it a little impatient of wet this autumn, and not nearly so fine in colour as it was in July. Exhibitors have found in it a great acquisition, but as a garden Rose its value is not so apparent.

Königin Carola.—I must confess to being greatly interested in the parentage of a new Rose, and although, as pointed out by Mr. Dickson at the Royal Horticultural Society's Rose conference in 1902, one cannot possibly lay down any rules or definitions upon the subject, I have no hesitation whatever in saying that for

an observant amateur to know the parentage of a variety is often a guide to him in its cultivation. It is rare that one comes across a variety that is exactly midway between its two parents in growth, habit, and appearance. Such a Rose is the one that heads this note, which was raised by a German rosarian named R. Türke, and sent out in 1903. It is a cross between *Caroline Testout* and *Viscountess Folkestone*, the former being the seed-bearer. The growth is that of *Viscountess Folkestone*, short and sturdy; the foliage bears a striking resemblance to *Caroline Testout*, while the flowers are midway between the two. It is a beautiful Rose in every way, just one of those sorts, in fact, which impress one with its beauty at a glance. The fine large buds are of pointed shape, and open into very large loose-petalled flowers, disclosing a wealth of yellow stamens—the colour an exquisite soft

shade of satiny rose. The flowers are produced in clusters of four or five, like those of *Viscountess Folkestone*, and are held erect.

Worcestershire.

ARTHUR R. GOODWIN.

PERGOLAS FOR ROSES AND OTHER PLANTS.

THE pergola is becoming so much liked and so generally used in English pleasure grounds that we are glad to give an illustration and notes on this now so popular addition to the pleasant things of the garden. There is a great advantage in having solid piers of masonry for such structures, but often the expense of this cannot be undertaken, and something slighter and less costly must be used. The illustration is the more instructive because the structure shown is only two or three years old, and the way the framework is made may be clearly seen.

In the case of this pergola, which is wreathed with *Clematis montana*, they are of squared wood, with the beams partly supported and much strengthened, and the whole fabric stiffened by slightly curved or cambered braces of the same. It should be noticed how much the curve of the brace adds to the strength of the support and how pleasantly it satisfies the eye. It would have been better still if the beam itself had been ever so slightly cambered. It will also be seen that the feet of the posts, instead of going into the ground, rest on a stone, an iron dowel let into both stone and posts fixing it firmly. Thus there is no danger of the foot of the post rotting.

For the first year or two there is no need to fill in the top with the slighter poles that later will support the more extensive growths of the creepers; indeed, the whole thing is very pretty, with a different kind of form and beauty to the mature pergola with its fully filled roof. In these earlier years one sees more of the individual plants, and their first vigour of growth and bloom can be more fully enjoyed.

A spur of Larch or Oak nailed or bolted to a shaky post will prolong its life for some years, but there always comes a day of sore regret (when constant repair is needed) that it was not made more structurally permanent at the beginning. Roses of the climbing and rambling kinds, *Wistaria*, *Clematis*, Vines, *Virginia Creeper*, *Jasmine*, and *Aristolochia* are among the best of plants for the pergola.

EDITOR'S TABLE.

CORNUS CAPITATA.

Lord Binning sends from Tynninghame a fruit of *Cornus capitata* (*Benthania fragifera*) from a tree on the estate, with the following note: "The fruits are hardly ripe yet, but they are well developed. When in flower the little trees were very beautiful, so thickly covered were they with bloom. The tree that has given most satisfaction is growing on heavy soil inclining to



CLEMATIS MONTANA OVER A PERGOLA.

clay, those on soil of a lighter nature not succeeding nearly so well."

HABROTHAMNUS IN FLOWER AND FRUIT.

I AM sending for your table a few bunches of flowers and berries of *Habrothamnus elegans* cut from an old plant growing in a greenhouse. At the present time it is laden with both flowers and berries, and looks very pretty hanging from the roof. It is annually cut hard back after flowering. Last season was the first time it berried. Would you kindly say if it is usual.—O. W. GUY, *Honington Hall Gardens*.

[The sprays sent were very beautiful. Flowers and fruit together on *Habrothamnus elegans* frequently occur, but we have rarely seen this plant so finely in fruit.—ED.]

HAKEA SALIGNA.

Mr. J. Rundle, Bosahan Gardens, St. Martin, R.S.O., Cornwall, sends a few small branches of *Hakea saligna*, with the following note: "The leaf-colouring of the young growth at this time of the year (also in spring) is very beautiful, and from a distance appears like some gorgeous flower; it has a most pleasing effect. It is quite hardy here; the tree (or tall shrub) is planted on a well-drained bank facing south."

[We were very pleased to see this beautiful shrub again.—ED.]

JAPANESE CHRYSANTHEMUMS.

From T. J. E., Maidstone, we have received a beautiful lot of the large-flowered Japanese Chrysanthemums in numerous richly coloured varieties. These handsome flowers are not seen at their best on the show-board at a Chrysanthemum exhibition; it may be said they are there seen at their worst. For use in large vases, however, they are most valuable at this season of the year, and make a bold and rich decoration that it is not possible to obtain at the present time with any other flower.

CYPRIPEDIUM THE BARON.

THIS is a large and handsome flower, the result of a cross between *C. Hitchinsiae* and *C. nitens* Sander's variety. The dorsal sepal is large and blotched, and spotted with purple upon a white ground. At the base the ground colour is rich green, and there the markings are more crimson than purple. Petals and pouch are brownish green. It received an award of merit from the Orchid committee of the Royal Horticultural Society when shown by Messrs. Sander and Sons, St. Albans, on the 21st ult.

CHRYSANTHEMUMS.

NEW FRENCH CHRYSANTHEMUMS.

AFTER visiting the recent Paris Show there are sure to be a few enquiries among my Chrysanthemum-growing friends as to the best novelties for the year 1906. It is always difficult to prophesy concerning novelties, and I will not attempt to do so now. But a few notes may be useful. Out of the immense number of novelties staged, seedlings not yet in commerce, it does not appear to me that a very large proportion are destined to displace older varieties. The French novelties as a whole are rather disappointing, although here and there one may expect to find a surprise.

Messrs. Vilmorin, Andrieux and Co. showed Mme. Lem. W. Bowen, which is a fine Japanese

incurved after the style of Lord Brooke; it has rather broad-grooved florets, which are whorled; colour deep rich golden bronze, inside of florets yellow.

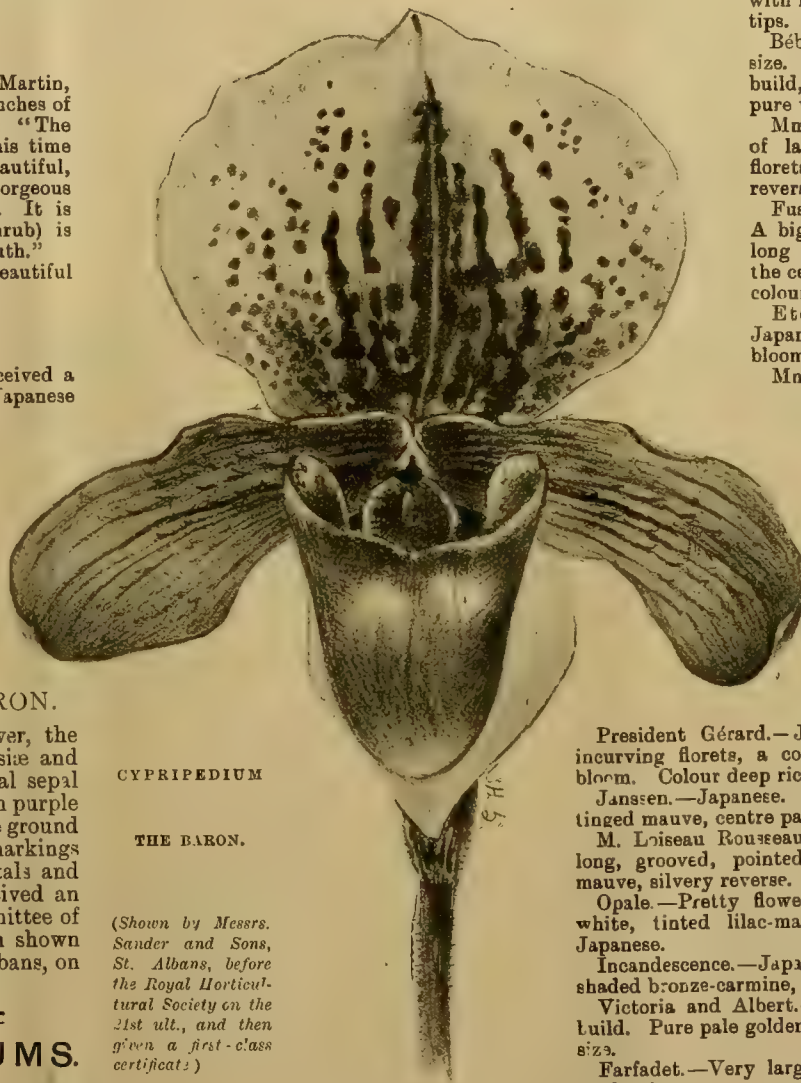
The Marquis de Pins did not show a large number of seedlings, but several were distinctly promising, the probable best are

Marie Couillard.—A Japanese with broad florets, colour fine creamy white, large blooms.

Bn. Gerard.—Large Japanese; long florets, a spreading flower, colour pure white.

Simon Paquerette.—Japanese, colour lilac-mauve, centre white, very large blooms.

Souvenir de Paul Couillard.—Japanese, broad flat florets, large flower, colour salmon rose on golden ground, reverse golden.



CYPRIPEDIUM

THE BARON.

(Shown by Messrs. Sander and Sons, St. Albans, before the Royal Horticultural Society on the 21st ult., and then given a first-class certificate.)

Congrès de 1905.—Medium-sized Japanese, very pure white.

M. R. zuin-Boucharlat of Lyons staged some interesting novelties, but these generally were only in mediocre condition. We select from this exhibit the following as being most likely to suit the requirements of English growers for exhibition.

Pelican Jaune.—Very large Japanese, long, twisted, intermingling florets of good breadth, colour rich golden yellow.

Bule de Laine.—An old-fashioned sort of incurved. Excellent form, but poor colour. Dull creamy white, tinted yellow.

Other exhibitors were M. Alfred Chautrier, who had some pretty shades of colour in his lot;

M. Caveon, M. Héraud, and M. Liger-Ligneau. In the latter's collection we saw one that deserves a note, namely, Mme. Depallier, a globular incurved of the old show type, florets broad and grooved, excellent in build. Pure white.

By far the most important lot was that from M. Ernest Calvat, who set up his collection in four or five blooms of each variety in vases. He headed the list for first-class certificates, receiving no fewer than ten. The following is a selection of his best seedlings for 1906:

Sergent Lovy.—A fine Japanese, with broad florets. Colour deep golden yellow.

President Loubet.—Immense sized blooms. Colour dull creamy white, slightly tinted pink towards centre. A Japanese with long florets, curly at the tips.

Bébé la Neige.—Medium in size. A Japanese, compact in build, colour pretty shade of pure white.

Mme. L. Roussel.—Japanese of large size, with narrow florets, rosy amaranth, the reverse silver.

Fusée.—One of the best. A big, spreading flower with long florets, shorter towards the centre. Japanese in form, colour pure pale yellow.

Etoile Polaire.—Large Japanese, a solid-looking bloom. Colour white.

Mme. E. Mulnard.—A large Japanese, reflexing florets, soft shade of pale bluish pink.

Ernest Renan.—Japanese, broad florets, colour yellowish bronze.

Mme. E. Salettes.—Japanese, very large, the florets of medium length. Bright rosy amaranth, tinted white, passing to white towards the tips.

President Gérard.—Japanese, with grooved, incurving florets, a compact and solid-looking bloom. Colour deep rich golden bronze.

Janssen.—Japanese. Colour white, slightly tinged mauve, centre pale yellow.

M. Loiseau Rousseau.—Very large Japanese, long, grooved, pointed florets. Colour lilac-mauve, silvery reverse.

Opale.—Pretty flower. Colour pure pearly white, tinted lilac-mauve. A medium-sized Japanese.

Incandescence.—Japanese. Colour rich orange, shaded bronze-carmine, reverse gold.

Victoria and Albert.—Japanese, very close in build. Pure pale golden yellow. Blooms of good size.

Farfadet.—Very large Japanese, florets curly at the tips, very compact flower in form. Colour golden yellow, tinged bronzy yellow.

Lucile Duplessis.—A Japanese, also a very full, double flower of excellent form. Colour lilac-mauve, passing to white in the centre. A big bloom.

Madagascar.—One of the grandest Japanese, of immense size. A full, compact flower. Colour deep rich golden yellow.

Mlle. Simon Jossier.—Japanese, of medium size, but very pretty. Colour white, slightly tinted and shaded rosy purple.

Mme. L. M. Cochet.—Japanese, of reflexing form, florets long and drooping. Bright rosy lilac-mauve, centre tinged yellow.

Camille Démonlins.—Japanese. Colour reddish orange bronze, centre golden, reverse same colour. A fairly large variety. C. H. PAYNE.

GARDENING FOR BEGINNERS.

SIMPLE HINTS.

ROSE AIMEE VIBERT.—Though this is an old Rose, it still has its place in the garden when free growth and abundance of white blossoms are required. I have seen it used for covering a steep bank, planted along the bottom and pegged down. It flowers early, and continues all through the season as long as Roses can be had. It is not a show Rose, as, of course, everybody who has grown it knows. It is a Rose for difficult situations, for covering arches and fences, and for climbing up old trees or poles. I have used it for festooning round a Rose garden where the bright-coloured Roses were planted, forming a charming foil to their brightness. Budded on stout Briar 6 feet or so high it makes a charming weeping Rose. It is easily propagated from cuttings, does well on its own roots, and, above all, is nearly evergreen.

Protecting Tea Roses in Winter.—Though Tea Roses are harder than commonly supposed, it is not wise to leave them altogether unprotected in severe winters. There are sheltered gardens where no protection is required in ordinary winters, but there comes from time to time, without notice, an exceptionally severe frost, and if nothing is done there will be blanks to fill up when the frost clears off. The wise man takes no risks which it is in his power to avoid. As regards dwarf Roses, earthing up the stems 4 inches or 5 inches will preserve the base of the plants, and the plants in the spring break away with renewed vigour. In earthing up I have generally waited for the first frost to harden the surface a little, and, instead of disturbing the border or bed, place mounds of dry earth saved for the purpose round each plant. A man with a barrow and spade will soon protect a lot of Roses without disturbing anything.

Bury the Stock when Planting.—The Manetti is not so much used as a stock as it was twenty or thirty years ago, but it is useful on light soil, where the Briar does not do so well. In using it more care should be taken to eradicate all buds which may in the future develop suckers. This care should be used all through its life, from making the cuttings onwards. When planting Roses on the Manetti bury the stock at least 2 inches beneath the surface, and afterwards always keep an eye on the base of the plant. If any suckers appear, clear the earth from them and cut them off with a sharp knife. Dwarf Roses on the Briar had better have the stock covered in planting. If the bottom of the Rose is covered with earth roots form and add to the vigour of the plant.

Pruning Roses when Planting.—I have found the advantage of removing soft unripe ends of shoots at planting time, especially if the plants are full of growth when lifted, and the largest leaves are removed at the same time. This relieves the pressure upon the roots, and the plants suffer less in removal. The leaves if left generally die prematurely, and their work is of no value to the roots in their efforts to establish themselves. I grant, of course, if the leaves and soft shoots retain their freshness they might be a help to the roots,

but as a rule they wither and die, and the effect tends to exhaust rather than help root formation. Of course, no hard or general pruning is done now; only the removal of soft, unripe parts which usually die during winter. When pruning cut close to a bud.

Sweet Briar Hedges.—The Penzance Briars make charming hedges 5 feet or so in height. I have seen them higher, but then there is a tendency to nakedness at the bottom. Up to 6 feet with careful training they may be kept quite full at the bottom. The site should be thoroughly trenched and manured before planting—a month or so, if possible—to give time for settlement. To make a perfect hedge only good, healthy plants should be selected, and planted 1 foot apart. Cut rather hard back the first season after planting to fill up the bottom. Afterwards a little annual trimming with the shears will suffice. There is much variety in these Hybrid Sweet Briars, and a hedge is not only bright when in blossom, as after the flowers fade the

scarlet hedges give another long period of brightness which is very effective.

The Wild Chrysanthemum.—Probably those who visit the Chrysanthemum shows and admire the great variety of form, shape, and colouring of present-day varieties rarely pause to think of the insignificant yellow flowers of the wild Chrysanthemum, the stock which has given rise to present-day varieties. Some years ago a plant of the wild type of the garden Chrysanthemum was shown in London and created a good deal of interest. A note in THE GARDEN by Mr. W. Watson at the time says that it was not until 1900 that good seeds were obtained. In habit of growth and foliage it is like other Chrysanthemums, while the flowers are single, yellow, and about three-quarters of an inch across. This plant carries us back to a period more than 2,000 years ago, when its cultivation and improvement may be said to have been started by the Chinese. Another species, *C. sinense*, also a native of China, is concerned in the origin of the garden Chrysanthemums. This species, which has purplish flowers, accounts for the wide range of colouring in the numerous varieties of the Chrysanthemum.



THE WILD CHRYSANTHEMUM (*C. INDICUM*).

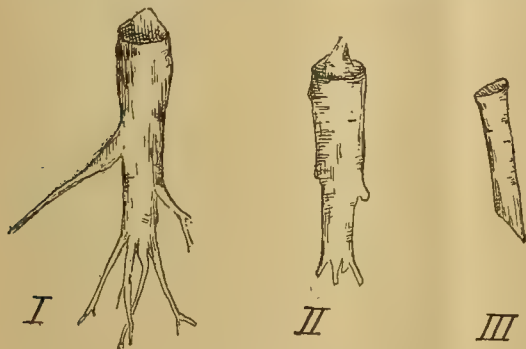
Figs in Pots Under Glass.—Two crops of fruit in one season may be obtained from Figs forced under glass. The best way of culture is to have them in pots, and so keep them in a movable condition. If a house can be given up to Figs, the back wall may be covered and one or two trees planted along the front, training them to a trellis fixed not less than 16 inches to 18 inches from the glass. The floor of the house may also be filled thinly with trees in pots. Care must be given to the preparation of the borders, so that the roots may be kept under control. In this way very profitable crops of Figs may be grown. The advantage of pot culture lies in this—the pots being portable, they may be brought on in any house where the requisite temperature can be obtained. I have forced Figs in Pine stoves, mixed forcing houses, or where pot Vines are grown. Large pots are not necessary, as the plants can very easily be supported by rich top-dressings, and liquid manure can be given freely while the fruits are swelling. To support the top-dressings zinc collars 3 inches or 4 inches wide can be fixed inside the rims of the pots, and the roots will work upwards for the food. Its effect will be seen in the health and vigour of the plants.—H.

To Make Figs Fruitful in the open air the border must have an impervious layer of concrete on the bottom. The concrete may be made of stones, brickbats, or clinkers. These are often waste matter about a garden, and if a station 6 feet square is made under each of clinkers or stones, and sealed in with a mixture of cement, sand, or lime and sifted ashes, and rammed down firm, there will be no trouble in the future, as the roots beyond the concrete bed can be easily lifted and pruned.

The Border should be 2 feet deep and lifted a little above the natural surface, and should be composed of good loam,

a little charred refuse from the bottom of fire-heaps, charcoal dust, old plaster from the *débris* of old buildings or lime in some form, and a sprinkling of bone-meal added. A mixture of this kind will ensure short-jointed firm wood that will show plenty of fruit. Liquid manure can be given when the fruits are swelling.

Seakale.—This is a hardy British plant. Seakale, as its name implies, is partial to the sea coast.



SEAKALE ROOTS.

I. Untrimmed root. II. Root trimmed for forcing. III. Root cutting for planting.

But it thrives well in any ordinary garden soil, provided that be well prepared for it. To obtain a supply or stock of roots, it is needful to sow seed. That can be purchased cheaply. For its reception, ground should be trenched 2 feet deep and well manured. Then, early in April, drills, 2 inches in depth, should be drawn with hoe and line at 20 inches apart. Along these the seeds should be sown thinly, and then covered up. It is not desirable, as the seed leaves are rather tender, that the plants should be above ground until the middle of May. When all are up they should be rigidly thinned out in the rows to 10 inches apart, as later on they need ample room. The ground needs to be kept well hoed as long as the strong leafage which will presently form will allow, but later that will quite cover the ground. In the late autumn, being mature, it will die away. Now the whole of the roots may be carefully lifted so as to preserve them intact, then each one must be hard trimmed of all branching or side roots cut off close to the main or tap root, which, when thus trimmed, should be about 8 inches long, and have a dormant crown at the tip. When trimming off all side roots the pieces should be carefully laid one way, so that the upper ends be known. But the first thing to do next is to chop down in the open ground with a spade a trench or furrow, 8 inches deep, and nearly upright. In this the crowns should be placed on end upwards, quite close together, and some soil put up to them and gently trodden, as well as a little over the crowns. All these roots may be, a few at a time, through the winter put into boxes or tubs, or on the floor of a close, dark cellar, or in any warm but quite dark place, in several inches of soil, and well watered, and from each crown will come stems, that being in the dark will be blanched white and tender, and when 7 inches long may be cut with a part of the crown and cooked. It is then a most delicious vegetable, and lasts, if there be plenty of roots, for some three or four months. All the side roots trimmed off should then be made into proper root cuttings. These should be from 4 inches to 5 inches long. The top part should be quite level, and the lower part slanting. Then all these root cuttings should be stood into trenches just deep enough to bury the tops, when, being placed thickly, soil is put against them and a little over them. Let that be done at once. Planting may be done at the end of March or early in April. For the reception of these cuttings the ground should be well trenched and manured, as is so constantly advised. The

cuttings should be dibbled into it in rows 20 inches apart, and 12 inches apart in the rows, to give ample room. The tops of the cuttings should be buried half an inch in the ground. When, in a few weeks, leaves appear, each root should be gone over, and all but one crown removed. The ground must be well hoed, and one dressing of salt or nitrate, at the rate of 5 lb. per rod, well hoed in, will do great good. The roots will have to be lifted and treated each winter just as advised for the seedlings, and trimmed, root cuttings being preserved and again planted in fresh soil. In that way it is easy to have hundreds of roots to blanch during the winter, and no vegetable is more profitable. To have some late blanched growths, some of the rows, if only one or two, may be left in the ground, and early in March have some light, loose soil placed over them in a ridge, and 9 inches deep. When the ground shows signs of cracking, rows should be cut from at one end until all are consumed. These roots may remain to produce crowns if desired for the following winter.

Compost for Striking Chrysanthemum Cuttings.—For beginners in the cultivation of the Autumn Queen, the preparation of a suitable compost in which to strike cuttings is a matter of some importance. Many growers of this kind have limited accommodation, and therefore cannot store soil in large quantities. It is not difficult, however, to procure a few bushels of almost any soil. Loam, leaf-mould, and coarse silver sand are essential for making a suitable compost for Chrysanthemum cuttings. Keep these soils under cover in a cool place, so that they may be obtained when required. Equal parts of fibrous loam and well-decayed leaf-mould should be passed through a sieve with a half-inch mesh. To the foregoing add about one-eighth part of coarse silver sand and a sprinkling of crushed charcoal. Well mix the heap before using. If this compost can be mixed a few days before it is actually required, and the heap turned over each day during the interval, the soil will be sweetened and the ingredients also better distributed. With such material to begin with the grower's prospects must be bright indeed.

GARDENING OF THE WEEK.

FLOWER GARDEN.

PLANTING.—It is advisable to defer further planting until the early spring where possible. In the meantime make further preparations for the later planting, by making clearances of Privet, Laurel, Rhododendron ponticum, and other undesirable, where overcrowded with them. Grub up old stools, roots, and strong weeds, trenching the soil and digging out the holes, and have all in readiness for the reception of the plants when the proper time comes. Also have suitable stakes for staking, and materials for mulching at hand. These details, if carried out now, will greatly facilitate the planting later—saving time and labour in a busy season. See to those already planted, particularly as to efficient staking. In

STAKING pay special attention to prevent injury to the bark. For this purpose it is necessary that something should be placed between the bark and the string, wire, or chain. For heavy work I use the spent and damaged tyres of motor cars, and they answer admirably; are tough and lasting and not unsightly, for short lengths lie close upon the stems. For lighter work, bicycle tyres are used with advantage, and folds of felt are also good; short lengths of hose-pipe may also be used. There are many odds and ends about most places that can be used for such purposes, until someone invents a suitable and practical contrivance to supply the want, for nothing I have seen so far is quite satisfactory. Having seen that all are efficiently staked, apply a mulch of any material.

TENDER BEDDING PLANTS under glass must be frequently looked over. Exercise great care in watering these while the days are short, dull, and damp, for an excess of moisture will quickly reduce the stock through damping. On the other hand avoid over-dryness at the roots, for that is equally detrimental to most. Should mildew be prevalent, dust freely with sulphur, and admit fresh air on all favourable occasions.

AUTUMN-ROOTED PELARGONIUMS (GERANIUMS) will benefit by being transferred from their cramped cutting pots to others—singly. The cuttings produced by these later will be less drawn and firmer, and much better for propagating, than if left crowded together or inserted now. The turn of the year is early enough to propagate these and kindred subjects. See that no drip or moisture gains access to

TUBEROUS BEGONIAS, tubed and boxed, and any fibrous varieties, kept for supplying cuttings, should not be over-watered. Look over the stocks of Dahlias, Cannas, Gladioli, Galtonia, Salvia patens, &c., that are stored in cool, dry quarters, removing any decaying bulbs, corms, or tubers—or parts thereof—or the whole may become contaminated and result in serious loss.

CUTTINGS of conifers and shrubs can be prepared and laid in until favourable conditions obtain for putting them out in nursery lines in friable sandy soil to root. Those already in should be heavily mulched with either rough leaf-mould, old Mushroom manure, or spent peat moss litter, to prevent their being worked out of the ground by frost.

JOHN ROBERTS.

The Gardens, Tan-y-bulch, North Wales

INDOOR GARDEN.

STOVE-HOUSE.—There are always a number of interesting plants in this house. At the present time the bracts of *Euphorbia pulcherrima* (Poinsettia) and the variety *alba* dotted here and there amongst the foliage plants, give to the house a warm and pleasing appearance. The arching sprays of *E. fulgens* (Jacquiniæflora) also add variety and beauty to the house. Feeding should be discontinued as the bracts reach maturity. If the cultivator has no intermediate house, such subjects as *Plumbago rosea*, *Scutellaria mocciniana*, and *Jacobinia coccinea* thrive better in the stove than a cool greenhouse. Mealybug and scale are especially injurious to the latter plant and *Aphelandra nitens*, if allowed to get into the bracts. The growths of *Allamandas* and *Bougainvilleas* having been shortened some time ago, the pruning of the earlier plants may be completed. The weak growths of *Stephanotis floribunda* should also be removed.

TUBEROSES.—By growing the African, American, and Pearl varieties and potting up successional batches it is possible to have Tuberoses in flower most of the year. The African is usually the easiest to obtain at this season. Use a compost of fibrous loam, adding a little leaf-mould and sand. Pot up the bulbs singly in 3-inch pots and pot on into 5-inch when growing freely; or place three bulbs in a 6 inch pot. Remove all side bulbs, as these tend to weaken the plants. Plunge the pots to the rim in a bed with a bottom-heat of from 70° to 80° Fahr. If the soil is fairly moist when potting, no water will be necessary till growth commences. In

PROPAGATING FRAMES at this season of the year there is usually plenty of room. Early in the year every inch of space being valuable, it is advisable to insert cuttings of some of the easier rooting subjects now. Plants for furnishing are usually easy to root. Pots of *Pilea muscosa*, *Selaginella*, *Tradescantia*, *Pellionias*, and *Panicum variegatum* are always useful. Cuttings of *Coleus* for an early batch may also be inserted. A few cuttings of *Acalyphas* can usually be found on the larger plants, which if put in now will be found useful in early spring.

LILY OF THE VALLEY.—So far the supply of flowers has been and is being obtained from retarded crowns. Where a propagating frame with a bottom-heat of 75° to 80° Fahr. is available, a batch of Berlin crowns can be started. Plunge the pots or boxes to the rim and cover with moss. Commence with a temperature of 65° Fahr., gradually raising it to the desired maximum. With the earliest batch or two there is often a lack of foliage. By gradually admitting air and light when the flowers are pushing, this fault can often be partially overcome.

LACHENALIAS.—Both in pots and baskets these are growing nicely in a cool house. Turn them round occasionally to keep the growths upright, as they are so liable to draw towards the light. Feed them with weak liquid manure two or three times a week.

PLANTS IN WINDOWS and rooms of a dwelling-house require very little water during the winter. Geraniums keep through the winter better if water is withheld for a month or two provided they are not in a very dry position. Sponge the leaves of Palms and *Aspidistras* once a week with lukewarm soapy water.

Royal Botanic Gardens, Kew.

A. OSBORN.

FRUIT GARDEN.

EARLY PEACHES.—The temperature in the earliest house, which was started at the beginning of last month, may be slightly raised; but no attempt should be made to force the trees at night, especially during cold frosty weather. This is one of the greatest evils connected with the forcing of Peaches, and one which is, perhaps, responsible for more failures than anything else. Admit air liberally in the forenoon on fine days, but close the house before the sun has lost its power. Syringe the trees in the morning and at closing time during sunny weather with water which is slightly warm. Keep the paths and the surface of the borders damp. A dry atmosphere will quickly cause the appearance of red spider. As soon as growth is active the work of disbudding should commence. It is far better to dispense with some of the buds at this stage than to wait till the growths are 2 inches or 3 inches long, when the removal of a lot at one time would be a great check on the trees. This work should always be started at the upper part of the tree, rubbing off the buds on the lower side of the shoots first. Before the trees come into flower examine the borders for water, giving them a thorough soaking if they require it, using lukewarm water. Special care must

be exercised during the flowering period, any neglect or carelessness in the matter of airing or firing may result in the complete failure of the crop. Damping and syringing must be discontinued. Encourage a free circulation of air, except when cold cutting winds prevail. A cold draught is very injurious to the flowers at any time. Pollinate the flowers at midday with a rabbit's tail. Take care that the flowers on the upper side of the tree are fertilised. This will save much time later on in raising the fruits to the light.

LATE PEACHES.—Prune and clean succession houses, and make ready for starting as they are required. Old exhausted trees will be benefited by watering the borders with diluted liquid manure, provided the roots are plentiful and in a healthy condition. Such borders should receive a good dressing of rich loam, old mortar rubble, wood ashes, and crushed bones when the trees are tied. Keep the houses thrown wide open while the trees are resting except when cold easterly winds are prevalent, when the front ventilators may be closed. I believe that cold draughts are responsible for a good deal of injury to the buds.

LATE GRAPES.—All late Grapes, except Lady Downe's Seedling, may be cut and bottled. Lady Downe's may be left till the end of the month if they are required very late. Cut them with as much wood as possible both below and above the bunch. The bottles may be filled with clean rain water. A few small pieces of charcoal will keep the water sweet. The Grape room should be kept dark and as frost proof as possible without having recourse to artificial heat. A temperature of 45° will be suitable. When the Grapes are cut the vines may be pruned and the borders watered with diluted liquid manure. If the crop has been unsatisfactory through shanking or lack of colour, the borders should be renovated as advised in a previous calendar. E. HARRIS.

Fruit Department, Royal Gardens, Windsor.

KITCHEN GARDEN.

BROCCOLIS have grown this season to a great size, and I am afraid if something is not done to check their growth they will not stand the rigours of a severe winter very well should it come. It is an old-fashioned method to lay Broccoli plants partly on their sides, or heel them over as it is called. This method has many recommendations in its favour, for by laying the plants at an angle with the hearts facing north they are away from the influence of the sun, which works the mischief after frost, and little moisture will then remain about the hearts. We grow most of our Broccoli plants between rows of late Peas, which are removed as soon as their crops are all gathered, so that the Broccoli plants may have all the light and air possible. Now that growth is completed, all the plants are carefully lifted with good masses of soil adhering to their roots and replanted. A good trench is taken out at one side of the plot they are to occupy, the plants are then laid in a proper position with rather less distance between than when growing, but on no account crowded. The next trench is thrown on to the roots and part of the stems, and so on until the work is accomplished. By lifting the whole of the Broccoli plants they can be planted according to the season when they will be ready for cutting, and they occupy a much smaller breadth of ground, thus allowing as much as possible to be dug in order to receive benefit from the elements. Walcheren and Michaelmas White Broccoli are both good and plentiful at present, and require careful attention by

covering up the hearts with their own leaves and removing those that are ready for use into some shed where they may receive sufficient light and air, and yet be safe from frost.

EARLY CARROTS. like young Potatoes, are always welcome on the table, and no matter how good the previous year's Carrots may be, they lack the fine flavour that Carrots newly grown possess. Cultivators who are in a position to grow early Potatoes in frames may easily produce young Carrots. If Sutton's Early Gem or Scarlet Horn are sown now on hot-beds made up in the usual way with leaves and stable litter, very good Carrots will, in ordinary circumstances, be ready for use very early next year. We force annually both the kinds named, and find them first-rate as regards flavour. Early Gem is ready for drawing first, but Scarlet Horn produces the finest-shaped roots for serving as a dish in a whole state. The soil to be placed on the bed for growing the Carrots had better be composed of equal parts of sand and wood ashes. A depth of 2 inches will be found sufficient, as the young Carrots root freely into the hot-bed among the leaves and manure. Sow the Carrot seed thinly broadcast, and cover very lightly. Keep the frame well matted at night and close during the day until the young Carrots appear, then air must be carefully admitted when the weather is favourable.

CABBAGE.—Young Cabbage plants have been growing apace of late, and now want attention by way of drawing some soil as close as possible to the necks without burying any of the leaves. The surface of the Cabbage plot will benefit greatly by being stirred up a little with the Dutch hoe some fine dry day before the plants are earthed up.

PARSLEY growing in boxes should now be placed in cold frames where abundance of air should be admitted on every favourable opportunity, and the boxes should occasionally be examined to see that they are kept fairly moist. A little soot or guano water now and then will help to keep the plants in a healthy growing condition.

J. JEFFREY.

The Gardens, St. Mary's Isle, Kirkcudbright.

ORCHIDS.

TRICHOPIA FRAGRANS and its variety *nobilis* are among the best of white sweet-scented Orchids that bloom at this season. Both plants are well worth cultivating, and deserve a place in every collection, for spikes of white flowers such as these plants produce are not common, and are very suitable for almost any kind of indoor decoration. *T. rostrata* is also a lovely white-flowering species; it produces its blooms during the spring months. Some growers find these plants thrive very well when grown with the *Odontoglossums*, but at Burford we find they do best with a few degrees more heat, especially at this time of the year. *T. coccinea*, *T. crisp*, *T. c. marginata*, *T. tortilis*, *T. suavis*, *T. lepid*, and *T. laxa* also grow well in the same temperature. The rare *T. brevis* has been showing its flower-spikes for several weeks past, and when the buds are about half grown the plant should be removed to the Cattleya house, where with the extra warmth the flowers will open better than if left in the cooler temperature. Any of these *Trichopias* that are late in making up their growth should also be placed in a little extra warmth, and still treat them as growing plants. Those plants that have completed their growths should be very sparingly watered or their leaves will quickly become spotted. When growth recommences any

plant that requires fresh rooting material may be repotted, using pots or shallow pans, the compost consisting of one-half leaf-soil, one-fourth peat, and one-fourth sphagnum moss. In potting keep the base of the pseudo-bulbs a trifle above the rim of the pot, so that each plant may be easily watered without fear of water getting in the young growths, as these, being very tender, are easily rotted off. I find these *Trichopias* prefer a light position, but not a sunny one, as the sun quickly turns the dark leaves to a sickly yellow hue. In the East Indian house or plant stove such plants as

PHALÉNOPSIS SCHILLERIANA, *P. Aphrodite*, *P. amabilis*, *P. sanderiana*, and *P. Emerald* have made their leaves, and are now pushing up flower-spikes. These evergreen species will require very great care in watering, and they should never be allowed to remain quite dry for long together, but water must be afforded in sufficient quantity to prevent loss of foliage. The sphagnum moss on the surface should now be allowed to become quite dry. This we do not water during the winter months. Examine the plants about twice a week, and afford water to those which require it. Where plants of *Phalénopsis* are growing in shallow pans and in a mixture of leaf-soil, peat, and sphagnum moss, water should be afforded in small quantities around the edge of the pan, taking great care not to make the compost too wet at any watering. Specimens with long flower-spikes must not be kept too close to the roof glass, or the ends of the spikes may turn black. Small and unhealthy plants will also produce flower-spikes; these should be allowed to produce two or three flowers each, and as soon as these are fully developed cut the spike off as close to the base of the leaves as possible, afterwards keeping the plant at rest until the proper growing season commences.

Burford Gardens, Dorking.

W. H. WHITE.

THE FRUIT GARDEN.

NOTES ON APPLES.

ALTHOUGH I have grown over 300 of the most noted British and foreign Apples for experimental purposes, my experience and opinion are widely different from those generally expressed by the leading fruit experts. For instance, Gravenstein is in no manner to be compared to the other American varieties grown here, such as Washington, Jefferson, Wealthy, and American Mother, which are nearly of the same season, and many of the other so-called new varieties. The reintroduced older ones are so far overboomed as to give the general public the idea that English Apples are inferior to foreign, whereas it is certainly the other way about. The American Newtown is generally admitted to be the best sent over. We have two of the same season, corresponding in texture, flavour, &c., in the Wyken Pippin of Warwickshire and Yorkshire Green Balsam, which, if more generally known, would oust this alien, which so far we are unable to grow in Hereford. Now, during the latter part of September, what foreign Apple can in any manner compare with James Grieve, which is a regular and heavy cropping variety? Again, King's Acre Pippin, from December to March, is incomparable as regards its combined properties.

James Grieve is the best by far, as grown here, for the latter part of September it is an enormous cropper. It must be eaten soon after gathering. Maltster or Malster (October to December) is an old favourite eating Apple of mine. How long are the British public going to refuse this Apple at 1d. per lb. and readily pay 6d. for Worcester



A COLLECTION OF DESSERT AND COOKING APPLES.

Pearmain of far inferior merit? Worcester Pearmain (September) I consider only third-rate in quality. It crops very freely here and makes big prices, but appearance is its only merit. Carnation Rose is a Worcestershire Apple not very extensively grown. It does well here, and the flavour is very good; in season during October and November. Gravenstein is not much of a cropper here.

The two large Apples shown in the accompanying illustrations are seedling cooking varieties; the others shown are Yellow Ingestre and Jefferson in front and Adams' Pearmain at the back.

Shobdon.

JOHN WARD.

NURSERY GARDENS.

CHRYSANTHEMUMS AT MERSTHAM.

MESSRS. W. WELLS AND CO., since removing their headquarters from Earlswood to their new nursery at Merstham, have very largely demonstrated the growing interest in the culture of the Chrysanthemum by catering for the requirements of various growers. Outdoors, in large open areas, there are immense numbers of early flowering varieties suitable for the border. Continental varieties and home-grown seedlings form a collection from which the most critical and exacting fancier could make a selection. Then, again, a large space is given up to the culture of the single-flowering sorts. But the chief interest in our annual autumn visit centres round the recent introductions and new seedlings for the purpose of exhibition. In the large greenhouse we see Mrs. G. Heaume, which is of a peculiar shade of straw yellow, a Japanese in form, with long grooved florets of medium width.

Harrison Dick is not new, but is certainly in excellent condition this season, its crimson and gold standing out conspicuously. J. H. Silsbury is worthy of mention for its long crimson florets and striking golden reverse. Some effective yellows in various shades are the Hon. Mrs. A. Acland, A. L. Stevens, Merstham Yellow, which is one of the most beautiful in form; W. R. Church is a well known and much appreciated Colonial variety; Henry Perkins, in large-sized crimsons, and F. A. Cobbold, purple amaranth with silvery reverse, are both in striking condition.

Here and there at intervals are placed large quantities of very freely-flowered single varieties. Merstham Crimson is rather a large flower of a deep velvety crimson, with a metallic tinge reverse of golden bronze. Mrs. C. Beckett is a large Japanese pure white variety, but slightly tinted yellow in the centre. Mrs. Eric Crossley is a fine pale yellow Japanese, with twisted florets. Beatrice May is altogether good, in form it is globular and deep, the florets are rather narrow and grooved, the colour pure white, slightly tinted lilac. We were shown a large number of grand blooms of Mrs. W. Knox, a magnificent Japanese sort, with long drooping golden yellow florets. G. F. Evans is another golden yellow sort, and still in the same shade is Mrs. J. M. Darcy, which has very long drooping florets. Mrs. F. F. Thompson is a Colonial novelty in the Japanese section, with long florets of bluish white. E. J. Brooke is one of the finest plum-coloured amaranth, reverse silvery. Mrs. Guy Paget, a globular flower of pale rosy pink, and Edith Smith, pure white but slightly tinted, are also attractive blooms. Mrs. J. E. Dunne is a long-petalled Japanese variety; colour, rosy cerise with golden reverse. Mary Ann Pockett is a Colonial sort, with broad florets, twisted and grooved; colour, rich crimson, reverse golden yellow.

Continental varieties this season are not numerous, but Miss Ellen Willmott, one of M.

Aug. Nonin's seedlings, is a Japanese incurred with very long florets, but rather narrow; colour, pure white. Another noteworthy variety from the other side of the Channel is Mme. G. Rivol, a rich yellow sport of great size and substance, from a famous parent, viz., Mme. Paolo Radaelli. Sapho is a noble, globular Japanese variety, raised by Calvat; it has deeply grooved florets, and is of a rich rosy lilac colour, with reverse of silvery pink. Jean Calvat, also a Calvat seedling, is orange crimson with gold reverse. Mme. M. de Mons is a large flower with broad florets, and the colour very pale pinkish pearly white. M. Paul Watine is one of this season's novelties, and of the biggest build; it is slightly incurving, with narrow grooved florets, a full compact bloom; colour, rich orange bronze. Roi d'Italie (and the two last named) are Calvat's seedlings. Roi d'Italie is a closely built flower, incurving Japanese, of deep canary yellow. C. H. P.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, W.C. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

Legal Points.—We are prepared to answer questions of law which have anything to do with the subject of gardening and forestry. The questions should be as clear and explicit as possible, so that there can be no doubt as to the point of the question. Answers will be found in a separate column headed "Legal Points."

FLOWER GARDEN.

ANNUALS (A. Wray).—For filling up old-fashioned beds the following annuals, from 1 foot to 2 feet in height, would be useful: *Clarkia elegans* Purple King, *Salmon Queen*, and *White*; *Gypsophila elegans*, *Linum grandiflorum rubrum*, *Mignonette*, *Malope* in crimson, rose, and white; *Phacelia campanularia*, *Shirley Poppies*, annual *Chrysanthemums*, *Godetias*, *Collinsia bicolor* and *white*, and *Nigella Miss Jekyll*. Among the most useful annuals for cutting are *Lavatera rosea splendens*, *Coreopsis*, *Cosmea bipinnata*, *Gypsophila elegans*, *Cacalia coccinea*, *Linaria*, *Mignonette*, and *Sweet Peas*.

VIOLAS DYING (Binbrook).—There is no doubt that your *Violas* are attacked by one of the wireworms, although you seem to think this is not the case. The name wireworm is given to the larvæ of quite a dozen sorts of beetles, and the way in which your plants are attacked leaves no doubt on the point. Wireworms are very fond of *Violas*. Our own plants suffered a great deal from their attacks last summer. Many of them may be caught by digging up the withering plants and searching for the worms in the roots and surrounding soil. Before replanting turn the soil over thoroughly and make a careful search. You will doubtless find a good many in this way. If you could keep the plants elsewhere for the winter, you might dress the soil with lime or salt, and leave it bare for the winter, planting in spring. If you cannot do this then dig it thoroughly and kill all wireworms seen. You may catch many by means of elided Potatoes or Carrots inserted in the border, with small sticks attached to indicate their whereabouts. Examine these every few days for the worms.

SWEET PEAS (W. J.).—Varieties of the same shade as Miss Willmott are Lady Mary Currie, Chancellor, Gorgeous, Henry Eckford, and Evelyn Byatt (the two last-named are new). The deepest coloured of these are the last three. Sweet Peas of the shade of Countess of Radnor are Lady Grisel Hamilton, Lady Nina Balfour, New Countess (an improved Countess of Radnor), Princess May, Helen Pierce (new), and Tom Bolton (new). You may plant the two classes above mentioned without fear of the colours clashing, as the shades only differ slightly in the several varieties of each colour.

A. James.—A decidedly unsuitable situation for summer bedding plants of any kind, but we think that the Tufted Pansies will suit your purpose better than any other plants. The name of the plant is *Begonia metallica*.

Novice.—Leave the *Begonias* in the soil all the winter in a place that is frost-proof. As the leaves die away gradually give less water, and finally, when all the leaves have fallen, give no water at all. Then repot and start them into growth in spring.

Mrs. Clarke.—The *Physalis* is a hardy perennial, and will, therefore, spring up every year. It is thus not necessary to raise plants from seed every year. Mytchett White, Market White, Queen of the Earlies, and Mme. Desgranges are four white *Chrysanthemums* suitable for outdoor culture.

Devon.—The names *Cydonia japonica* and *Pyrus japonica* refer to the same plant, as the first name is used by some authorities, and the second one by others. The "Kew Hand List," which is usually regarded as a standard work for this country, has passed through two editions, in the first of which, published in 1894, *Pyrus japonica* was given as the correct name, but in the list published in 1902 it was changed to *Cydonia japonica*.

E. H. A.—Much might be done to help get rid of small slugs which eat *Violas* in frames were the plants looked over after dark with a lamp or lantern, and the slugs picked off the plants. It is probable that in the evening every pest in any frame is then out feeding. Were also a good dressing of fresh soot or quicklime strewn about between the plants carefully, the leaves being gathered up by the hand first, many would be killed. Of course, it would not do to smother the *Violas* with soot or lime, as that would spoil the flowers entirely. We think the practice of picking off the slugs the very best plan. You may try lawn sand in the same way, but it must not touch the leaves.

C. W. H.—It is clear that there is some peculiarity locally which your letter does not fully reveal, and we can only say that the man on the spot is by far the best qualified to judge as to what is best to be done. We suggested the lime formerly by reason of its sweetening effects, for we came to the conclusion that the soil was—at least, in certain parts—sour, and that such sourness was the direct result of poor or inferior drainage. We hardly agree with the advice of your gardening friend as to the sea-sand and lime, certainly not a good mixture on which to sow grass seeds. Your own suggestion on the lines of our former advice will be best, i.e., dig the sand and lime in soon, and sow the lawn again in spring.

Bad Lawn.—The combination of sulphate of ammonia and sand you give is usually that of what is sold as lawn sand. The sulphate lying on the broad leafage of the *Daisies* or *Plantains*, burns it, but does not kill the roots. Like salt, which will similarly destroy weed leafage, but not roots, the sulphate, when dissolved, becomes manure, and the weed growth later is often as bad as before. Really the very best method to deal with the trouble is to have the *Daisies* pulled out with strong table forks during the winter, fine soil spread over the lawn later, then when well raked in sown with fine lawn grass seed. Four pounds per rod area of basic slag should be sown with the soil dressing, and in May, after new grass is grown, then dress with 2lb. per rod of fine sulphate of ammonia.

TREES AND SHRUBS.

MAGNOLIA (John Makin).—There is little chance of flowering your specimen of *Magnolia grandiflora* in a pot in the greenhouse, at all events not until it is a good deal larger than now, for this species of *Magnolia* will reach a height of 20 feet to 30 feet in England, and at least twice that in its native country—the Southern United States of America. If possible by all means plant out your specimen against a south wall, taking care that the spot is effectually drained and the soil is a sandy loam. Give no manure of any kind. In this way it forms a very handsome wall plant, the leaves being so beautiful, and in a couple of years, if in a flourishing state, it should flower—that is, if it has been propagated from a layer, as these bloom in a smaller state than seedlings. If you cannot plant it out the better way will be to winter it in the greenhouse, and as soon as the harsh winds and frosts of spring are over the plant may be placed in a sunny spot out of doors, taking care that it is

properly supplied with water throughout the summer. As it increases in size it may be shifted into a tub, which is far more convenient than a very large pot.

PRUNING PYRACANTHA (A. E. S.).—In order to have a good show of berries on the *Pyracantha* too much pruning should not be resorted to, but at the same time a certain amount is often beneficial. There is sometimes a tendency to form a tangled mass of weak shoots, and when this is the case they should be well thinned out. The best time to prune is in February, or about that season—that is to say, directly the berries begin to fade, and in pruning the old wood may be cut out or shortened back, whichever best fits the shape of the specimen. The flowers, and consequently the berries, are borne on the previous year's growth, so that in pruning the good clean shoots of the preceding season should be cut as little as possible, providing they do not interfere with the shape of the tree. In the case of an old-established specimen against a wall it sometimes fails to give a good display of fruit by reason of its starved condition. Then remove as much of the surface soil as possible without damaging the roots, give if dry a thorough soaking of water, and replace the exhausted soil with a good lasting compost.

F. M.—The Poplars are attacked by an aphid (*Aphis salicis*). The best cure is to spray the trunks and branches with an insecticide about April and May, which is the time the eggs begin to hatch out. A solution of Paris green might be used. If the trees are not of much value it would be better to cut them down.

W. H. B.—The bush and Holly hedge may be pruned any time this winter from now to the end of January. The hedge must not be allowed to grow up too quickly or a thick and dense bottom will not be secured. Therefore we should advise cutting back a portion of this year's growth (say one-third), repeating the same operation every year until you are satisfied that the bottom is dense enough. The only way in which the bottom can be thickened is by forcing lateral growth from the base of the trees. After this is secured very little cutting of the top will be necessary, and the hedge will soon reach the height you require.

ROSE GARDEN.

ROSE MARECHAL NIEL IN POTS (A. H.).—The plants that you have just received should not be cut back at all this season, excepting a foot or so from the extreme ends in order to remove the unripened wood. You will find, if the plants are treated well, that there will be some fine blossoms produced from the long rods. This grand Rose succeeds much better when it is planted out in a really good border under glass; in fact, one should take as much care in preparing for this Rose as for a Grape vine. If you intend keeping the Rose in a pot, the present size, presumably 8-inch diameter, will not suffice for it after the first crop. If you cannot plant out, then your best plan will be to plant in a large pot or small tub. We do not advise you to do this just now, but wait until the blossoms have appeared. After flowering do not cut back much, but spread out the shoots.

PRUNING ROSES (W. J., Streatham).—Those classes of Roses which require very little pruning are climbing, pillar, and other strong growing Roses; Austrian Briars, Scotch Briars, Hybrid Sweet Briars, Pompon, Rugosa or Japanese Roses, Banksia, Gallica or French Roses, and single-flowered Roses. All the best known climbing Roses, such as Dorothy Perkins, Crimson Rambler, &c., produce flowers on the growths made the previous year; therefore, the shoots must not be cut back in the spring. When flowering is over cut out altogether a few of the oldest shoots which have blossomed, so that the young shoots to flower the next year may have more light and air. The Roses which require to be more or less closely pruned are the Hybrid Perpetuals, Hybrid Teas, Teas, Bourbons, Provence, Moss, and China. If you want quantity rather than quality, cut back the shoots of the Hybrid Perpetuals and Hybrid Teas in the spring to within, say, 6 inches or less of the base, according to the strength of the shoot. If you

want exhibition blooms cut them back to the two basal buds. The tender Teas often require little pruning, as by the spring there may be little sound wood left. The bulk of the roots of Roses should be fairly near the surface, but some, of course, go down, and the object of having a well-dug soil is to prevent their getting into what would otherwise be sour soil.

SOWING ROSE SEED (Raimbault).—If, as you say, the pod is quite ripe, the seeds should be sown at once. Prepare two or three small pots, about 5 inches in diameter, and make these half full of small crocks. Then fill up with compost prepared as follows: One part sifted loam, one part leaf-soil, and one part silver sand, mixed well together. Break the pod and separate the seeds you find therein, then put about seven seeds in a pot, burying them about five-eighths of an inch deep. Sprinkle the top of the soil with silver sand until all the soil is hidden. Give one watering, then place the pots in a cold frame or greenhouse. It is essential that the pots be kept plunged in some damp material, but do not cover the top of the pot. If the seed was fertile the seedlings would appear in two or three months after sowing. When they have grown a fair size you could transplant the seedlings to the open ground, taking care the ball of soil be not broken.

PLANTING ROSES IN DECEMBER (B. K. G., Leeds).—Defer planting until March or April. The best method of heeling in the plants is to make a trench at the foot of a north wall or close fence. Spread the plants out thinly, then fill the trench with soil. Tread this firmly about the roots, and if the bases of the shoots are beneath the soil for 2 inches or 3 inches so much the better. Plants thus heeled in will be safe against injury by frost. When you plant in spring have some prepared soil ready, and give each plant a shovelful. The important thing to remember regarding these spring-planted plants is to make the soil firm about a week after planting. The holes thus made should not be filled up, as they serve to hold water. Cut back the plants to two or three eyes from the base before planting.

W. W.—Mr. Wm. Paul's "Rose Garden" treats upon the subject of seedling Roses, and we should recommend its perusal. You would be able to obtain seed from some varieties of Roses if you have the plants in pots, and you are careful to accelerate the growth as much as possible in spring. It is advisable to have the plants in blossom during May in order that the seed may have sufficient time to mature. You would succeed much better were you able to have one row of hot-water pipes running through your pits. This is essential for maintaining a warm and dry atmosphere during the period of blossoming. Raising seedling Roses is a most fascinating occupation, but it is one that unless you enter into it thoroughly your labours will be in vain. Even with the most careful cross-fertilisation that can be carried out raisers find that the really worthy novelties are less than 2 per cent.

THE GREENHOUSE.

GREENHOUSE FLOWERS (F.).—Sow the seeds of *Streptocarpus* thinly in early spring (January to March) in pots or pans filled with light soil and well drained. Place them in a house where the temperature is about 60° to 65°, and keep moist. When large enough to handle, pot off into small pots. Keep in the same temperature until they are large enough to put in their final pots, then gradually inure them to the temperature of a greenhouse. From seed sown at the time mentioned the plants ought to be in flower by July. *Gloxinias* should be sown at the same time; they need a light soil chiefly composed of loam. Some peat or leaf-soil and sand should be intermixed. Pot off very carefully as the plants grow and require larger pots. Give each plant plenty of room, otherwise the leaves will damp off or get broken. Although they like a moist atmosphere, with a temperature of 60° to 65°, the leaves must not be syringed, and, of course, the flowers must not be. Even watering should be done with great care, so as to avoid wetting the leaves, otherwise these will damp off. When the flowers begin to open, the air in the house must be kept dry; it is only when growing that they need a moist air. So with *Achimenes*, and, in fact, all plants with leaves of thick texture, water should be applied very carefully. Give a moist atmosphere while the plants are growing, but do not syringe directly on the plants. There have been

articles in *THE GARDEN* on these plants. We know of no book dealing specially with them.

Novice.—A firmly-potted plant may retain moisture in the soil longer than one loosely potted, but would, when dry, probably suffer more, because air would be the more excluded; also a hard ball of soil would be longer in becoming moist again than a loose one. Some plants, *Chrysanthemums*, for instance, need hard potting; others, especially such things as Chinese *Primroses*, like a looser texture. You may test the effect on a couple of ordinary zonal *Pelargoniums* very well next spring, shifting the plants from 3-inch into 4½-inch pots, potting one hard, the other light, watering them, then leaving them to dry, and see which the sooner flags or droops.

Ireland.—*Lathyrus pubescens* naturally passes through a quiet period during the winter, and at that time it presents a somewhat shabby appearance. Early in the new year, however, fresh shoots will be pushed out, not only from the base of the plant, but also from the old wood. For this reason it must not be cut down. A bed in a conservatory mentioned by you should be an ideal position for it, provided the structure is a light one and plenty of air can be given when needed. When planted out an effectually drained border is necessary to its well-doing. In the more favoured districts it does well out of doors, and, if in your place, we should be inclined to try some of the seedling plants under such conditions. The protection of a wall is generally considered necessary for their well-doing, but we have met with several flourishing examples altogether away from a wall.

ORCHIDS.

RESTING DENDROBIUMS (T. Shipley).—The time allowed for resting *Dendrobiums* varies considerably for different plants. When the flower-buds show signs of extending gradually increase the amount of water given and place them in a slightly higher temperature; if you should wish to get them in flower early it can be done by placing them in more heat as soon as the flower-buds are in evidence. As often mentioned in *THE GARDEN*, *Dendrobiums* when resting must not become so dry as to cause the pseudo-bulbs to shrivel, although they must be kept dry. Very little water will maintain the bulbs in a sound state till the flower-buds advance, when more water is necessary. This treatment is applicable to noble, crassinode and any of their hybrids. *D. primulinum* requires a very long rest and very little water until the flower-buds are well advanced. *Cypripediums* are best potted soon after flowering. *Vandas* require a humid position in the stove Orchid house and very little water during the short dull days. When the days lengthen and roots once again become active give more water and a shady position. When potting fill the pots nearly full with clean crocks, worked up around the stems, always getting as much as possible of the leafless part of the stem in the pot and work the crocks around it, then surface the whole with good clean sphagnum moss. Repotting is best done when the roots are active.

BOOKS ON ORCHIDS (J. O'Neill, Johannesburg).—"The Amateur Orchid Cultivator's Guide-book," by H. A. Burberry, 5s. 4s.; "The Book of Orchids," by W. H. White, 2s. 9s.; "Orchid Grower's Manual," £1 5s. 7d.; and "Orchids, their Culture and Management," £1 5s. 6d., by W. Watson, curator of the Royal Botanic Gardens, Kew, are the chief works on this subject. We could obtain any of these works for you.

KITCHEN GARDEN.

MUSHROOM GROWING (T. J. W.).—Our correspondent asks the question whether a Cucumber house with bottom-heat, or a greenhouse with surface-heat only, would be the best house for growing Mushrooms in winter? Our answer is that both would be suitable, only that the bottom-heat in the Cucumber house must be dispensed with whilst the Mushrooms are growing, and very little heat would be required in the pipes of either houses. It is better to make provision for what heat is necessary by covering the beds over with straw litter and mats. This keeps the surface of the beds dark, and conserves the heat for a much longer time than dry heat from the pipes would do. The best temperature to maintain is from 53° to 57°. Having, as you say, a good Mushroom book to refer to, you can easily learn from it how to prepare the manure, form the beds, spawn them, and the after treatment.

Beds 1 foot in depth (10 inches when they are hard pressed) can be formed on the shelves and under them, and if there is room on the floor ridges could be formed like Celery ridges, 3 feet wide at base, and 2½ feet high at the ridge. Make sure that the spawn you use is new and fresh, as the success of the crop depends much on the quality of the spawn. From the time the beds are spawned until the crops are gathered, it will take from three and a-half to four months. We mention this in case the houses being occupied in spring by the Mushrooms, might be the cause of delay in planting out your Cucumbers. You cannot grow Mushrooms without horse manure. It would have been better if you had started a month or two sooner.

X. X.—Both Lemon and common Thyme can be raised from seed, or be lifted, pulled to pieces and replanted, and thus increase the stock. Both Marjoram and Savory can be increased by seed sowing and division of old plants. Fennel is easily raised from seed.

J. W. Walters.—Swedish Turnips are a distinct race, and are generally consumed by cattle, but small bulbs, such as may be easily grown in gardens, make a very welcome dish in winter if properly cooked. Seed should be sown in April or early May, afterwards thinning out the seedlings to 9 inches apart. The roots are fairly hardy, and may be left in the ground until January, then they should be pulled, trimmed, and stored in sand for use as needed.

FRUIT GARDEN.

VINE LEAVES DISFIGURED (W. A., Arle).—The Vine leaves with spots and disfiguring marks appear to have been scorched. This may have been caused by the sun shining on the leaves in the early morning while they were still moist. To counteract this you should leave a chink of air on the top of the vinery all night. Mildew might also have disfigured the leaves in this way if the Vines suffered from this fungus during the summer. In any case, as the leaves are not disfigured until they commence to ripen, it is not serious. In case there are mildew spores about you will do well to gather up all fallen leaves and burn them. Leave none about, for it is on decaying leaves that the spores pass the winter. When all the leaves have fallen remove also the surface soil and burn that, replacing with fresh. If you do this, and take care to keep a little air on the house during next autumn, the leaves will most probably be sound.

RED SPIDER ON VINES (Constant Reader).—In the first place be careful to pick up and burn all the leaves as they fall. When all are fallen prune the trees and wash down the house carefully, roof, walls, pipes; in fact, all exposed surfaces. Wash the Vine down with tepid water and soft soap, taking the greatest care not to injure the buds. Paint them afterwards with the following solution: Half a pint of soft soap, half a pint of flowers of sulphur, quarter of a pint of paraffin, and a quarter of an ounce of Tobacco dust. Mix together with warm water to the consistency of thick paint, add to it afterwards one gallon of clear water, and apply with a soft brush as soon as the trees are pruned, giving another application soon after Christmas. Whilst the mixture is being used it should be constantly stirred. After the Vines have been painted and tied to position the surface soil of the border to the depth of 2 inches or 3 inches should be removed.

W. W.—There seems to be no doubt that the Apple was damaged before it was stored, hence the decayed parts. How this was done, whether by careless handling, or in what way, we are unable to say. Hardy fruit needs to be most carefully treated when being gathered and carried to the store room, for any parts which are bruised then will become rotten later.

MISCELLANEOUS.

H. H.—Write to the secretary of the Royal Horticultural Society, Vincent Square, Westminster, London, S.W. He will give you full particulars. These were published in THE GARDEN for the 15th ult.

F. E. S.—No, we should not advise a dressing of sulphate of ammonia early in the year after a dressing of basic slag in the winter. Basic slag contains acid; 100lb. will have, say, the following proportion, 17lb. of phosphoric acid, 50lb. of lime, 6½lb. of magnesia, and 10lb. of iron, and to add more lime and sulphate of ammonia in the spring would cause diverse action, and you would lose the value of the

former preparation. Why not, if required, use more slag now, say at the rate of 6cwt. to 10cwt. per acre, then you would have a lasting food or a long supply of phosphoric acid, which will enrich the soil in phosphates. You do not say if your soil is peaty, light, or clayey, but to all soils poor in lime you may apply the slag in the quantity named at this season, but it should be dug in, not used as a top-dressing.

NAMES OF FRUIT.—G. G. Tavistock.—The Apple is a local variety. —Veld.—1, Warner's King; 2, Hambledon deux Ans; 3, Boston Russet; 4, King Harry; 5, Egremont Russet; 6, Sandringham.

NAMES OF PLANTS.—J. E. E.—*Hæmanthus virescens albidus*.—*Rhagatt*—*Hornbeam* (*Carpinus Betulus*).—*J. R. Droop*.—*Berberis* (*Mahonia*) *japonica*.—*E. L.*—*Pernettya mucronata*.—*James Tizzard*.—Coniferous plants as a class are very difficult to name from small specimens, but to the best of our belief those sent are as follows: 1, *Taxus baccata fastigiata*; 2, *Juniperus thurifera*; 3, *J. virginiana* var.; 4, *Cryptomeria elegans*; 5, *Sequoia sempervirens*; 6, *Cupressus sempervirens*; 7, *Juniperus virginiana*; 8, *J. chinensis*; 9, *Cryptomeria japonica*; 10, *Retinospora squarrosa*; 11, *Abies pectinata*; 12, *Juniperus* sps.

LATE NOTES.

Norwich Chrysanthemum show. I beg to draw your attention to an error in your account of the Norwich Chrysanthemum show. I, and not Mr. Hanson as stated, was first in the class for six incurved blooms, one variety.—C. NICHOLS, *The Manor House Gardens, Ormesby, Great Yarmouth*.

Obituary—Mrs. Jaques.—We much regret to hear of the death of Mrs. Jaques, the wife of Mr. J. Jaques, who was for many years head gardener to Baron Ferdinand de Rothschild, and afterwards to Miss Alice Rothschild, at Waddesdon Manor, Bucks. Mr. Jaques retired from his position a few years ago, and now resides at Waddesdon, where Mrs. Jaques died on the 30th ult.

National Chrysanthemum Society.—The new undertaking of this society, to hold for a second time an exhibition of market Chrysanthemums, promises to be on a much larger scale than last year, and to be a successful branch of the society's work. The schedule, which is somewhat larger than the last, contains four divisions, viz., market growers, nurserymen and specialists, commission salesmen not growers, and open classes. The show will be held on Wednesday next, the 13th inst., in the French Flower Market, Covent Garden. Medals will be awarded as prizes. The admission will be 6d., there being no free admission for members.

LEGAL POINTS.

LIABILITY TO BUILD WALL (*Forget-me-not*).—We regret that we cannot answer questions relating to Scotch law. In any event this is a case in which you would have to consult a lawyer. Advice in the columns of a newspaper would be useless and dangerous.

DAMAGE BY STRAYING HORSES (*D. K.*).—If your neighbour is under statutory obligation to maintain the fence he would appear to be liable for the damage caused owing to his neglect to perform his obligations. The solicitor seems to be advising you properly, and you had better be guided by him. Get him, in the first instance, to write a letter demanding damages. If he is able to obtain same, well and good; if not, ascertain from him in writing the probable cost of an action in the county court should you lose your case.

HARDY PLANT NURSERY (*Land*).—You had better make a definite agreement with your landlord as to your right to remove the plants. This will avoid any dispute, but, while an ordinary tenant is not entitled to remove Rose bushes, shrubs, Box borders, &c., which he has planted, this rule does not apply to a nurseryman or market gardener, and the tenant of an agricultural holding has special privileges as to compensation. A landlord cannot claim a higher rent because a

tenant makes the land more profitable than was anticipated, but, unless it is taken for a term of years, he might give the tenant notice to quit with a view to getting better terms. Therefore be careful to get a lease, and, if you are doubtful of success, stipulate that you can terminate the same at certain periods of the term. Make the first period an early date.

ABSOLUTE ASSIGNMENT OF FURNITURE (*N. S.*). To be effective against creditors the assignment must be executed in the presence of a solicitor and registered as an absolute bill of sale. Unless there is a valuable consideration for the transaction, i.e., unless your wife pays you the value of the furniture, the assignment can be impeached by your creditors at any time if they can prove that it was executed to defeat creditors' claims. If you become bankrupt within two years it will be void, and if you become bankrupt within ten years the person claiming under the assignment must prove that your property was sufficient to pay your debts without the property included in the assignment. Particulars of all bills of sale are published in the trade papers, so that an assignment of your furniture might injure your credit. You should consult a solicitor, as you could not prepare the assignment yourself. An unregistered assignment would suffice to vest the furniture in your wife apart from any question as to creditors, but she would have to pay estate duty in the event of your death within twelve months, and probably at any time if you continue to use the furniture. But practically no duty would be payable if the total value of your estate is under £500.

SOCIETIES.

NATIONAL CHRYSANTHEMUM SOCIETY. ANNUAL DINNER.

THE annual dinner of this society took place on Tuesday evening, the 28th ult., at 6.15 p.m., about 104 members and their friends being present. Mr. Charles E. Shea, president of the society, occupied the chair, and was supported among other well-known enthusiasts by Messrs. G. Schneider (president of the French Horticultural Society of London), H. Ballantine, Thomas Bevan, J. H. Witty, C. Harman Payne, D. B. Crane, Brian Wynne, H. J. Jones, D. Ingamells, A. Taylor, J. W. Moorman, W. Wells, and J. T. Simpson. The tables were prettily decorated with flowers of the large Japanese sorts, and several of the more dainty singles and decorative varieties were pleasingly associated.

The chairman proposed the toast of "His Majesty the King and the rest of the Royal Family," specially alluding to the great interest Her Majesty the Queen took in displays of flowers, especially referring to the thoroughness of her visit to the Rose show at the Botanic Gardens in July last. At this stage Mr. Ballantine made an appeal on behalf of the fund inaugurated by Her Majesty for the unemployed. This was responded to in no mean manner, a considerable sum being realised. A telegram was also despatched to His Majesty the King, congratulating him on his recovery from his recent accident while out shooting.

The toast "Success to the National Chrysanthemum Society" was also proposed by the chairman. Reference in kindly terms was made to the late Mr. Richard Dean, who had served the society so well. The chairman also said that on this occasion our thoughts would naturally turn to that home of the Chrysanthemum—at least, one home—viz., Japan, who were congratulated on coming out of their recent ordeal so satisfactorily. He said they could review the past year's work with satisfaction. The shows had been very fine. There were deviations from the old rut. He said the Pompons were well shown. Among other things, he thought the class for forty-eight Japanese brought out superb exhibits, and he could congratulate the National Chrysanthemum Society on their fine November show. Some suggestions were made as to the future work of the society. Encouragement of market varieties and the publication of a year-book were specially mentioned.

The president then presented the Affiliated Societies Trophy to Mr. G. Hunt on behalf of the Epsom and District Chrysanthemum Society, the Holmes Memorial Challenge Cups (two), and the Ichthemio Guano Company's Cup to Mr. W. Higgs, gardener to J. B. Hankey, Esq., Fitcham Park, Leatherhead.

Mr. A. Taylor (treasurer) proposed the toast of "The Donors of Special Prizes." Special reference was made to the cups, trophies, and valuable cash prizes offered by generous donors. Mr. J. H. Cozens, secretary to the Crystal Palace Society, responded, saying how pleased he was when the time came round for the Chrysanthemum shows at the Crystal Palace. There was no place in the country equal to it for such displays.

The toast of "The President, Vice-presidents, Treasurer, Secretaries, Committee, &c., of the Society" was ably

proposed by Mr. Brian Wynne. Mr. R. Ballantine, Mr. T. Bayan, and Mr. C. Harman Payne responded.

Mr. D. B. Crane proposed the toast of "The Affiliated Societies," calling attention to the preponderance of Japanese blooms at our shows. He suggested that prominence should be given to other types, particularly to the singles and other interesting forms. Mr. G. Hunt, representing the Epsom and District Chrysanthemum Society, replied.

At this stage the chairman presented Mr. C. J. Caselton, superintendent of the Crystal Palace Gardens, with a gold medal for his invaluable services at the show. Mr. Caselton suitably responded.

"The Chairman" was proposed by Mr. J. H. Witty, who spoke of the great services he had rendered. The audience sang "For he's a jolly good fellow." Mr. Shea responded.

Mr. E. F. Hawes in a pleasing speech proposed the toast of "The Ladies and Visitors," to which Mr. J. T. Simpson replied. "The Press" was proposed by Mr. D. Ingamells, and responded to by Mr. E. Hooper Pearson.

An excellent programme of music was rendered under the direction of Mr. T. Bennett-Griffin.

ROYAL HORTICULTURAL SOCIETY.

ON Tuesday and Wednesday last the Royal Horticultural Society held an exhibition of Colonial-grown fruits, of preserved fruits and vegetables. The chief features among the exhibits of Colonial produce were the magnificent exhibit of Apples from British Columbia and the varied collection of West India produce shown under the auspices of the West India Committee. Exhibits of flowers, fruits, and vegetables were shown before the committees as usual. Some excellent displays of fruits, vegetables, indoor flowers in great variety, and Orchids were exhibited. Among the latter was a remarkably beautiful hybrid *Odontoglossum*, shown by Messrs. Charlesworth and Co., Heaton, Bradford. A new Apple obtained an award of merit.

FRUIT AND VEGETABLE COMMITTEE.

Present: Mr. George Bunyard (chairman), Messrs. J. Cheal, T. W. Bates, S. Mortimer, Alex. Dean, H. Farr, Edwin Beckett, W. Fyfe, W. Pope, J. Lyne, F. Q. Lane, C. Foster, J. Willard, W. H. Divers, Owen Thomas, A. H. Pearson, J. H. Goodacre, G. Wythes, and John Wright.

The Hogg Memorial Medal for fruit was awarded to Mr. J. H. Goodacre, Elvaston Castle Gardens, Derby, for a very fine collection of Apples and Grapes. The Apples were perfect specimens, beautifully finished, and richly coloured. Baumann's Red Reinette, Bijou, King of Tompkins' County, and Fearn's Pippin were among the best. Grape Muscat of Alexandria was splendidly represented.

A silver-gilt Knighting medal was awarded to Mr. W. H. Divers, gardener to the Duke of Rutland, Belvoir Castle, Grantham, for a collection of excellent Apples and Pears. Among the latter, Beurré diel, Beurré d'Anjou, Josephine de Malines, Le Lectier, and Beurré de Jonghe were some of the best, while The Queen, Rymer, Bramley's Seedling, and Annie Elizabeth were good dishes. Grapes Alicante and Muscat of Alexandria in baskets were arranged in this collection.

Messrs. H. Cannell and Sons, Swanley, Kent, exhibited a splendid lot of hardy fruit attractively arranged, and the fruits of good quality, large size, and rich colouring. Silver-gilt Knighting medal.

Mr. J. Crook, Forde Abbey, Chard, showed a bunch of Gros Colmar Grapes with small berries to show the influence of the variety West's St. Peter's, upon which it was grafted.

Mr. H. J. Clayton, Grimston Park Gardens, Tadcaster, exhibited fruits of the Shaddock. These fruits, said Mr. Clayton, make excellent Marmalade. The tree from which they were gathered is known to have been at Grimston Park early in the nineteenth century. Cultural commendation.

Some good Ribston Pippin Apples were exhibited by Sir Walter Gilbey, Bart., Epsom, Essex, to show the good effect of the following manures: Superphosphate of lime, nitrate of potash, nitrate of soda, and sulphate of lime. Cultural commendation.

Several new Apples were shown, but only the one described below obtained an award of merit.

A cultural commendation was awarded to Mushrooms grown from Cuthbert's spawn. Shown by Mr. W. A. Cook, gardener to Sir E. Loder, Leonardslee.

A silver Banksian medal was awarded to Mr. A. G. Gentle, Little Gaddesdon, for some splendid Onions.

Mr. W. Deal, Kelvedon, Essex, was awarded a silver Banksian medal for a collection of Potatoes.

Excellent collections of Potatoes were shown by Messrs. Dobbie and Co., Rothsay and Mark's Tey, Essex (silver Knighting medal), and by G. Massey and Sons, Spalding (silver Banksian medal).

NEW FRUITS AND VEGETABLES.

Apple James Kirk.—This is a new Apple obtained by crossing Blenheim Orange and King of the Pippins. It is of somewhat uneven conical form, partaking more after Blenheim Orange in appearance than King of the Pippins. The fruit committee thought so highly of this fruit that they gave an award of merit. It was shown by Messrs. Cross and Son, Wisbech.

Potato Peacemaker.—An award of merit was given to this variety after trial at Wisley. Shown by Mr. Scarlett, Market Place, Edinburgh.

COLONIAL AND BOTTLED FRUIT.

There was a magnificent exhibit from British Columbia of fruit grown in that colony. It consisted wholly of Apples displayed in boxes and on dishes, and filled one end of the hall. The Apples were remarkable for their size and rich colouring, and so far as appearance goes were magnificent samples. Jonathan, Northern Spy, Ben Davis, King of

Tompkin's County, Baldwin, Akin Red, Esopus Spitzenburg, and Arkansas Black were among those most finely coloured. One of the most attractive Apples in the exhibit was Hubbardston Nonsuch, not unlike Allington Pippin, though more richly coloured. Fall Pippin is a very large pale yellow conical Apple. As showing the great progress made by the fruit industry in British Columbia, ten years ago she did not grow enough fruit to supply her own population, while last year over 3,000 tons were exported.

For the third time the West Indies filled a prominent position. Among the exhibitors in this section, which occupied the whole side of the large hall facing the entrance, were the newly-formed British West Indian Fruit Company, Messrs. James Philip and Co., and the Pure Cane Sugar Co., whose exhibit was varied and interesting, the Royal Mail Steam Packet Co., the Agricultural and Commercial Society of Grenada, whose economic products were particularly well put up, and the Royal Agricultural Society of Jamaica; while the smaller exhibits included the well-known Jamaica cigars of the Golconda Tobacco Co., recently awarded the Grand Prix at the Colonial Exhibition, and Oranges and Grape Fruit from Messrs. Aston W. Gardner and Co. A special feature is made of West Indian Limes, which, it is pointed out, for all purposes for which Lemons are now used, are infinitely superior.

A collection of Apples was shown by the Department of Agriculture, Nova Scotia. They were of medium size and well coloured. Blenheim was exceptionally richly coloured.

Mr. J. R. Blanchard, Nova Scotia, exhibited boxes of Apples as received after their journey from Nova Scotia.

The Kootenay Fruit Growers' Association, British Columbia, showed some Apples of splendid appearance.

An exhibit of eighty bottles of fruit was shown by Mrs. W. H. Plowman (cottager), Heath Cottage, Beddington Corner, Mitcham. Mrs. Plowman had preserved all the fruits herself.

Mr. George Penwill, Totnes, Devon, exhibited bottled fruits and jam, as well as a preserved shoot of his Raspberry Penwill's Champion.

The first prize for home-bottled fruits was taken by Mrs. E. Beckett, Aldenham, Herts, with first-rate samples.

ORCHID COMMITTEE.

Present: Messrs. James O'Brien, R. Brooman White, de B. Crawshaw, W. A. Bilney, Francis Wellesley, Jeremiah Colman, R. G. Thwaites, G. F. Moore, F. J. Thorne, H. A. Tracy, W. H. Young, W. Boxall, H. Little, Harry J. Veitch, and H. Ballantine.

Baron Schroder, The Dell, Egham (gardener, Mr. Ballantine), exhibited a group of choice Orchids that contained some finely-flowered plants of *Cypripediums*, e.g., *C. pitcherianum* Williams' var., *C. Mrs. C. Canham*, *C. leeanum* maserellianum. *Calanthe Harrisii* (a beautiful flower, white, except for a pink tinge), *Odontoglossum crispum* Princess Christian (heavily spotted with chocolate-red), *O. Uro-Skinneri* album, *O. ruckerianum* isogone, *Trichostema* suavis, *Lycaste* Ballie, *Cypripedium* insignis Sanders, *C. Baron Schroder*, *C. Laura Kimball*, and *Dendrobium* cobbianum were some of the choicer Orchids shown. Gold medal.

Messrs. Charlesworth and Co., Heaton, Bradford, exhibited a small group of Orchids that contained some beautiful flowers. The most remarkable was a new hybrid *Odontoglossum*, raised from *O. Rosii* rubescens and *harryano-crispum*, which was given a first-class certificate, and is described under new Orchids. Among the hybrid *Cypripediums* shown by Messrs. Charlesworth and Co. were *C. leeanum* clinkberryanum, *C. Lord Ossulton*, *C. Harefield Hall* variety, and *C. Rosita*. *Laelio-Cattleya* Lydia and *Odontoglossum* prionopetalum Eastwood Park variety were other good Orchids here. Silver-gilt Flora medal.

Mr. J. Cypher, Cheltenham, showed a group of *Cypripediums* representing many of the best varieties. In the centre there was a remarkable plant of *C. leeanum* giganteum bearing fifty-six flowers. *C. insignis* Sanders, *C. Mandie*, *C. Euryades*, *C. leeanum* Bourtonli, *C. prospero*, and others were among the *Cypripediums*. *Zygopetalum* Mackayi, *L.-C. canhamiana*, and *Dendrobium* Phalanopsis were also well represented. Silver Flora medal.

A plant of a variety of *Odontoglossum* crispum which has been growing in a salt jar for four years without drainage was shown by de B. Crawshaw, Esq.

F. Wellesley, Esq., Westfield, Woking, exhibited several hybrid *Cypripediums*. *C. insignis* Mrs. F. W. Moore, with yellowish petals and lip, and dorsal sepal of the same colour, except for a broad, upper margin of white, is a beautiful flower.

Sir W. Marriott, Bart., Blandford, showed cut flowers of several hybrid Orchids.

NEW ORCHIDS.

Odontoglossum hybrid Smithii.—This is possibly the most remarkable hybrid *Odontoglossum* ever shown before the Royal Horticultural Society, and a most beautiful flower. Its parents were *O. Rosii* rubescens and *O. harryano-crispum*. There is a margin of purple around the flower, broadening at the ends of sepals and petals. The remaining ground colour of sepals and petals is cream, faintly tinged with green in the former; it is marked with purple-black spots so close together as almost to form a mass. At the base of the upper sepal there is a bar of purple-black, and also at the base of each petal a smaller similarly coloured mark. The lower half of the lip is purple, the upper part cream-coloured, with a yellow frill, and spotted with dark purple. Exhibited by Messrs. Charlesworth and Co., Heaton, Bradford. First-class certificate.

Laelio-Cattleya Epicasta Gatton Park variety.—A very fine form indeed of *L.-C. Epicasta*, which was raised from

Cattleya gigas and *Laelia praestans*. The petals are broad and tinged with purple, the lip is large, rich purple, and the throat is lemon yellow; a very beautiful flower. Shown by Jeremiah Colman, Esq., Gatton Park, Reigate (gardener, Mr. W. P. Bound). First-class certificate.

Panda sanderiana Chillingham variety.—This is a very large and richly-coloured form. The upper half of the flower is lilac-rose, and the two large lower sepals are heavily veined with crimson upon a brownish yellow ground. A first-class certificate was given to the variety, and a cultural commendation to the plant, which carried five racemes, and altogether some thirty-five flowers. Shown by the Earl of Tankerville, Chillingham Castle (gardener, Mr. G. Hunter).

Cypripedium Acteus F. H. Cann.—A variety of *Cypripedium Acteus* (insigne montanum magnificum × leeanum giganteum) with a very large dorsal sepal. The lower half is green spotted with brown, while the upper half is white spotted with pale purple. Shown by G. F. Moore, Esq., Bournemouth-on-the-Water (gardener, Mr. Page). Award of merit.

(The report of the Floral Committee is held over until next week.)

CHELMSFORD AND DISTRICT GARDENERS' ASSOCIATION.

"CHRYSANTHEMUMS" was the subject dealt with before a record attendance of 134, including the Mayor and Mayoress of Chelmsford, at the last meeting. Miss Phillbrick of The Cedars, Halstead, read a most interesting paper on the historical, artistic, and poetical aspect of the Chrysanthemum. The Chinese grew it in the time of Confucius, and later on the Japanese adopted it as their national flower. The best methods of using them for table decoration, and the foliage most appropriate, were fully explained. The single varieties were considered most suitable for dinner tables. Mr. C. Simpson, St. John's Nurseries, then read a paper on "Chrysanthemum Culture for Exhibition and Decoration," giving sound practical advice on all details. He also exhibited some excellent blooms.

LAW.

A CASE of interest to horticulturists was heard in the Bloomsbury County Court on the 1st inst. Mr. Arthur R. Mallard, Rainham, Kent, sued Mr. J. O. Clarke for the balance of the price of the whole of plaintiff's stock of double blue Lobelia, described as Kathleen Mallard. Plaintiff showed his new flower at an exhibition of the Royal Horticultural Society, and was given an award of merit. Upon this he was approached by the defendant, and it was eventually agreed that plaintiff should sell his "entire stock"—eleven pots—of the new flower for the sum of £30 and a share of the profits which might in the future result from the propagation and sale of the plant. The defence was that defendant had purchased the Kathleen Mallard in the guarantee that plaintiff possessed the only specimens of the flower, but as a matter of fact a similar variety was to be found at Wisbech and at Chelsea. In giving judgment for Mr. Mallard, Judge Bacon said all he had guaranteed to do he had done. He had sold his "entire stock" to the defendant, and as to the flower being found elsewhere, no doubt the same process of Nature which produced the new flower in one garden would do so in another. It was ridiculous to suppose the plaintiff or anybody else could have guaranteed that there was no such flower in the whole world.

PUBLICATIONS RECEIVED.

Leaflets on Larch Canker, Bacterial Disease of Tomatoes, and Planting Fruit Trees and Bushes, and Agricultural Returns for 1905, published by the Board of Agriculture and Fisheries; Journal des Roses; Tropical Life; Kew Bulletin (List of Seeds of Hardy Herbaceous Plants and of Trees and Shrubs); Le Chrysanthème; Buletino della R. Società Toscana di orticoltura; Bulletin de la Société Nationale d'acclimation de France.

CATALOGUES RECEIVED.

Chrysanthemums.—W. J. Godfrey, Exmouth, Devon; Norman Davis, Framfield, Sussex.

Amaryliss.—Labelliflorus Nurseries, Voorschoten, Holland. *Seeds of Trees and Shrubs*.—Vilmorin-Andrieux et Cie, Paris.

General Price List.—Damman and Co., San Giovanni à Teduccio, near Naples, Italy; H. Henkel, Darmstadt.

Tufted Pansies.—Mr. H. H. Crane, 4, Woodview Terrace, Highgate, N., has sent his catalogue of Tufted Pansies, which contains the names of all the best and most recent varieties, including the Violettas or miniature-flowered. The latter are very useful for the rock garden, where it is recommended that "they should be left undisturbed for two or three years." Those who wish to know the names of the most beautiful Tufted Pansies should write for this list.

GARDENING APPOINTMENTS.

MR. JAMES BOYLE, as gardener to H. Pakenham, Esq., Mahon, Strokestown, Ireland.

MR. E. LITTLE, Royal Gardens, Kew, as assistant Royal Botanic Gardens, Calcutta.

MR. E. W. DAVY, Royal Botanic Gardens, Kew, has been appointed assistant forester, Lornaba, British Central Africa.

* * * The Yearly Subscription to THE GARDEN is: Inland, 6s. 6d.; Foreign, 8s. 9d.

THE GARDEN.

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DECEMBER 16, 1905.

THE NATIONAL ROSE SOCIETY.

ONE of the pleasantest events in the horticultural year is the annual meeting of the National Rose Society. The room was crowded on Thursday last with Rosarians from many parts of England, and the greatest interest was shown in the proceedings. Mr. C. E. Shea, the president, presided with his usual commendable tact, and also occupied the chair at the annual dinner which followed.

The annual report, read by the excellent secretary, Mr. E. Mawley, showed that the society is numerically and financially stronger than in 1904 thanks, in a great measure, to the success of the metropolitan exhibition in the Royal Botanic Gardens, Regent's Park. It was, of course, a great experiment to travel from the heart of London to a beautiful fringe away from the great centres of London life, but the experiment was an unexpected success. The charming grounds formed a setting to the show which was less conventional than usual, and certainly most representative. No ardent Rosarian will forget the splendour of the new Hybrid Tea Rose J. B. Clark, which was raised by Mr. Hugh Dickson of Belfast, and awarded the gold medal of the society.

The provincial show, which was held at Gloucester, brought an interesting competition and a good attendance, and the autumn exhibition in the new hall of the society was a distinct advance upon its predecessor. The flowers were conspicuous for freshness and colour, and those of Frau Karl Druschki as beautiful as anything exhibited at the summer display.

There were several interesting points in the report. Mr. E. B. Lindsell, one of the most successful of amateur Rosarians, has secured the champion challenge trophy fourteen times out of fifteen exhibits during the past sixteen years, and it was handed to him by the society as won outright—a worthy reminder of many victories in the annual tournament of Roses. Mr. H. E. Molyneux's work as the hon. treasurer, an office entailing a vast amount of labour, was warmly appreciated, and the president was not forgetful of the services rendered to

the society by Mr. Edward Mawley and the committee.

The pruning book has been in great demand, and we are not surprised that so excellent a publication should be wanted by the beginner in Rose growing. We are certain that the publication of such handy and practical guides has a powerful influence in acquiring new members, and we predict a great success for the New Year book, which the president announced will probably be produced in the near future.

The society is increasing in financial strength. The balance now stands at £340 19s. 11d., and 422 new members have joined during the year, making the total 1,637. The date of the metropolitan exhibition received its usual share of discussion, and after much argument was fixed to be held between the 3rd and 9th of July, and we hope this resolution will be permanent. Feeling reference was made by the president and Mr. Mawley to the services rendered by the founder and senior secretary for twenty-five years, the late Rev. H. D'ombrain, and also to the late president, the Dean of Rochester. It is proposed, when the Dean Hole Memorial Fund, which now stands at £150, is closed, to institute some memorial to the late Rev. H. D'ombrain.

The attendance at the annual meeting constituted a record, and also at the dinner which followed, when the society welcomed the Rev. Canon Horsley and Dr. Henry as guests. It was a thoroughly enjoyable evening. The remarks of Dr. Henry on the Roses of China were of great interest, and we hope the society will continue to welcome men of distinction at the annual gathering of members.

Thus the officers and committee begin the work of the society for another year under the most pleasant conditions. The labours of Mr. Shea as president, of Mr. Edward Mawley as secretary, and Mr. Molyneux as treasurer, have propelled the society forward, and it stands to-day amongst the most vigorous of the institutions connected with horticulture.

It has shown a liberal policy, and while providing for the exhibitor, has been wise in extending its beneficent help to the struggling amateur and those who love the Rose, not for any special points of form or of "finish," but for the beauty it brings to the gardens of these isles.

HOLLY AND MISTLETOE.

"Christmas! the joyous period of the year,
Now with bright Holly all the temples strew
With Laurel green and sacred Mistletoe."

CHRISTMAS is here, and with its coming we are reminded of Holly and Mistletoe and other rites and mysteries sacred to the time of year. In the New Forest there are numbers of Hollies which flourish beside the giant Oaks and Beeches, and which are now glowing with a dazzling show of scarlet berries. The very name "Holly" is suggestive of cheerfulness and good cheer; of old days, when Christmas was kept as it should be, with wassail and festivity. Even the weather seemed more in season then, for we never seem to hear of a "green Christmas that makes a full churchyard." But yet there are many associations connected with Holly; of happy days in the nursery, when one of the greatest delights was in decorating the house "from top to toe." I can remember now the damp smell of the piles of evergreens and Holly brought in from the garden, topped by a large bunch of Mistletoe from the old Apple tree, for without Mistletoe no decoration could be complete. We are unconsciously celebrating one of the last remains of Saturnalia in Christmas decorating, or a custom hardly less ancient, which hails from Germany, where Holly was hung up in every house at Christmas as a shelter for sylvan spirits from the cold. No one should dream of bringing Holly into the house before Christmas Eve. There is a superstition that all Christmas decorations should remain on the walls until Candlemas Day, or ill luck will ensue. Herrick tells us

"Down with the Rosemary, and so
Down with the Bays and Mistletoe;
Down with the Holly, Ivy, all
Wherewith ye decked the Christmas hall,
That so the superstitious find
No one least branch there left behind.
For look, how many leaves there be,
Neglected these, maids, trust to me,
So many goblins ye shall see."

There is also an old Border proverb which says that a person who is given to romancing "never lees but when Hollen is green."

Some of the Holly hedges found in old gardens attain great height and thickness. I know one in a Highland garden that is several hundred years old, and affords an effective protection from the northerly winds that blow. In the garden of the famous John Evelyn at Deptford is a beautiful Holly hedge 400 feet long and 9 feet high.

Mistletoe is perhaps even more emblematic of Christmas and its revels than Holly. Gardens nowadays do not appear to possess so much of this plant as they used, but in the long stretch of country between Tours and Bordeaux almost every tree has a large bush of Mistletoe growing out of it,

perhaps because no one cares to take the trouble to cut it off, for, after all, Mistletoe is a parasite.

DOROTHY HAMILTON DEAN.

PRIZES FOR GARDENERS. DECEMBER.

TABLE DECORATION.

A First Prize of FOUR GUINEAS,

A Second Prize of TWO GUINEAS,

A Third Prize of ONE GUINEA,

And a Fourth Prize of HALF-A-GUINEA

are offered for the best essays on "Table Decoration."

The essay must not exceed 1,500 words; it must be written on one side of the paper only, and be enclosed in an envelope marked "Competition," addressed to "The Editor of THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C." The essays must reach this office not later than January 6. Both amateur and professional gardeners may compete. The name and address of the competitor must be written upon the MS., and not upon a separate piece of paper. The Editor cannot undertake to return the MSS. of unsuccessful competitors.

OBITUARY.

HENRY ECKFORD, V.M.H.

WE are very sorry to receive the news of the death of Mr. Henry Eckford, whose name has become familiar in almost every gardener's home. The volume of THE GARDEN for Christmas, 1896, was dedicated to this famous raiser of Sweet Peas, and in the accompanying notes it is stated that he was born at Stonehouse, in the parish Liberton, near Edinburgh, on May 17, 1823. In December, 1839, he was sent as an apprentice to the gardens of Lord Lovat, Beaufort Castle, Inverness, where he remained for three years. He returned to Edinburgh, and then went to New Liston, the seat of Mr. James Hogg. He subsequently was employed as foreman in the following gardens: Fingask Castle, Perthshire; Penicuik House, Midlothian; and Oxenford Castle. In the beginning of 1847 he arrived in London with a letter of introduction from Mr. McNab, of the Edinburgh Botanic Gardens, to Mr. Hugh Low, by whom he was sent as foreman in the gardens of Colonel Baker at Salisbury, then under the management of Mr. Dodds, who will be remembered in connexion with the improvement of the Dahlia and other florists' flowers. He remained here for two years, afterwards serving under Mr. Fleming in the gardens at Trentham, and going thence to Caen Wood, Highgate. In 1854 he was appointed head gardener to the Earl of Radnor at Coleshill, Berke, where during his stay of twenty years he raised many Dahlias, Pelargoniums, and Verbenas, which were for the most part sent out by the late Mr. Keynes of Salisbury. In the year 1878, Dr. Sankey, who was an enthusiastic florist, invited Mr. Eckford to take charge of his gardens at Sandywell, Gloucester, with the view to raising seedlings of florists' flowers. At this time improvement in Sweet Peas had not been thought of, and in 1879 he obtained the best varieties of edible Peas and various Sweet Peas. He soon set to work and raised many fine varieties of edible Peas which are of value in our kitchen gardens at the present day.

The work of Mr. Eckford with the Sweet Pea shows how much may be done with simple and often neglected things in our gardens. The Sweet Pea certainly was always one of the most valued of flowers, but now, with so many delicate and lovely hues, these plants are a garden of beauty. Who knows how many other things in our gardens may not have in them the germs of like improvement? Even some of the shrubs that now only have one aspect for us may some day show us a like variety. In any case, we owe many charming things for our open-air gardens to the late Mr. Eckford. A few months ago a subscription list was opened which took almost a national form; a valuable presentation was made to Mr. Eckford as some recognition of his good work.

THE EARL OF ILCHESTER.

LORD ILCHESTER, whose death was recently announced, was an enthusiastic gardener, and was well known in the world of horticulture. He was a member of the council of the Royal Horticultural Society, to whom for two years he lent the grounds of Holland House, his Kensington residence, for their summer show.



THE LATE EARL OF ILCHESTER.

The gardens at Holland House, and also at Abbotsbury, Lord Ilchester's Dorsetshire seat, are among the most famous in this country.

RECENT PLANT PORTRAITS.

THE December number of the *Botanical Magazine* contains portraits of

Lissocylus Mahoni.—Native of Uganda. This is a large-flowered and very handsome species, and is described as a remarkable novelty. It produces tall spikes of flowers, the upper petals of which are pale rose colour, with greenish lower petals, striped with brown, and brown-striped rosy purple lip. It flowered in a tropical house at Kew in 1903.

Saxifraga apiculata.—Of garden origin. This is a very pretty Saxifrage, with bunches of good-sized pale yellow flowers. It was raised by Mr. F. Maly, curator of the Belvedere Imperial Gardens, near Vienna, by crossing *S. Frederici-Augusti* with *S. sancta*.

Felicia echinata.—Native of South Africa. This is a pretty small-leaved shrubby half-hardy Aster, with flat, lilac-purple flowers of about the size of a florin.

Sciadopitys verticillata.—Native of Japan. This is one of the most distinct members of the family

of the Coniferae, and belongs to the division Taxodiaceae. It is commonly known in gardens as the Umbrella Pine.

Primula Veitchii.—Native of China. This is a bright-flowered and beautiful Primrose, with bunches of rose-coloured flowers resembling those of *P. cortusoides*. It is one of many good new plants sent to Messrs. Veitch by their collector, Mr. E. H. Wilson.

The November number of *Flora and Sylva* contains portraits of

Sarracenia flava and *Fritillaria* or *Korolkowia Sewarowi*, from drawings by the late much-lamented H. G. Moon, whose untimely death is such a loss to horticulture generally.

W. E. GUMBLETON.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

December 19.—Annual meeting of the National Dahlia Society, Hotel Windsor, Victoria Street, 2.45 p.m.; Royal Horticultural Society's meeting; Sevenoaks Gardeners' Society's meeting.

December 29.—Lee and Blackheath Horticultural Society's meeting.

Royal Horticultural Society's Rules for Judging.—The third revised edition of the society's "Code of Rules for Judging, and Suggestions to Schedule-Makers, Judges, and Exhibitors, for use at Horticultural Exhibitions," has just been issued, and can be obtained from the Royal Horticultural Society's offices, Vincent Square, Westminster, price 1s. 6d.

Flower border competition.—In the awards in the flower border competition, among the specially commended, is the name "Mr. Wm. Duggan." I conclude this is meant for me, as I sent in a plan. Is it too much to ask that this should be corrected next week? Many of my friends in different parts of the country read THE GARDEN, and would, I know, be interested; and, as hon. secretary of the Bowdon Amateur Horticultural Club, I am known to you and others.—MRS. WILHELMINA DUGGAN.

The new director of the Royal Gardens, Kew.—Sir William Turner Thiselton-Dyer, K.C.M.G., whose resignation of the post of director of the Royal Botanic Gardens at Kew is announced, has held that appointment since 1885, and for ten years—1875-1885—before his promotion, he was assistant-director. His successor, Lieutenant-Colonel David Prain, M.B., I.M.S., had a distinguished University career at Aberdeen and Edinburgh before he entered the Indian Medical Service in 1884. Three years after his arrival in India he was nominated Curator of Calcutta Herbarium; in 1895 he became Professor of Botany at the Medical College, Calcutta, and superintendent of the Royal Botanic Garden there, and in 1898 he was appointed director of the Botanical Survey of India. He is 48 years of age.—*The Times*.

Carnation The President.—This Carnation is a new maroon-crimson American tree variety. In all probability it responds more freely to the greater sunlight of the American winter. In England some of the blossoms are inclined to be rather rough and loose. This defect is not absolute, and some of the blossoms create hopes of better things when home-raised stock is more abundant. Strong and vigorous in growth, with tall stems, this handsome Carnation appears to be scentless, judging from the few winter blossoms I have seen. The petals are large, but they are not overcrowded in the flower, and the latter opens freely during winter. I regard The President as a Carnation of much promise, and well worth attention.—E. J.

New Hybrid Tea Rose Marie Henry.—The *Journal des Roses* for October gives a coloured plate of a new Hybrid Tea called Marie Henry. It is said to be an excellent Rose both in growth and flowering. It was raised in 1897 from Irene Watts and Beauté Lyonnaise, by M. Buatois, rose grower, Dijon, and was sent out for the first time in 1900. The plant is of a very vigorous, almost climbing habit of growth, and free flowering. The flowers, which are large and full and well exposed on long stalks, are white, lightly tinged with canary yellow. It is especially recommended for culture as a standard.

Yucca Karlsruhensis.—At the annual meeting of a German gardening society recently one of the members spoke highly of the hybrid *Yucca Karlsruhensis*, which had flowered with him. It is quite hardy, and can be recommended as a valuable new plant. It is interesting as being characteristically intermediate, both in leaf and flower, between its parents, *Yucca angustifolia* and *Yucca filamentosa*. *Yucca Karlsruhensis* flowers a little later than *Y. angustifolia*; the latter forms an unbranched inflorescence, while that of *Y. Karlsruhensis* is branched as in the case of *Y. filamentosa*. This new *Yucca* has produced seed both when fertilised with its own pollen and that of other species.

A new Kale Carter's Drumhead. At the meeting of the Royal Horticultural Society on the 21st ult., the fruit and vegetable committee gave an award of merit to the above Borecole after a thorough trial in the society's gardens at Wisley. Certainly the award was well deserved, as the heads staged were excellent in every way, solid, and did not show the least damage from frost. The quality is delicious, and this should be a strong point in its favour. This new Kale is quite distinct from the older or ordinary Kales. It is of dwarf and compact habit. For general use it will be most valuable. We have none too many good hardy Kales, and the new addition, when it becomes well known, should be a great favourite on account of its hardiness and good eating qualities. It is not readily injured by severe weather, and should provide a supply from November to March. Any vegetable at that season, which gives variety, should be welcome, more so when it can be grown so readily from seed sown the previous April and given an open position and deeply cultivated land.—G. WYTHES.

The Indian Crepe Plant is the popular name of *Lagerstroemia indica*, a most beautiful warm greenhouse plant. It belongs to the family of Lythraceæ. In the warm part of the large Temperate house at Kew it is planted out in the border, and when in full bloom the large plant there is a lovely sight. One seldom sees a fine large specimen of this plant bearing freely its panicles of soft pink crimped blooms. A writer in *Die Gartenwelt* says that this *Lagerstroemia* is an excellent plant for tub culture, easy to grow, though not so easy to flower. It is beautiful when only in leaf, however. It may be placed out of doors in summer. It blooms in late summer. It prefers a fairly heavy soil, loam with which some leaf-soil has been mixed; sand, too, should be added, and when the plant is in full growth some manure should be given. Young plants may be raised from cuttings quite easily, and be grown along with Rose cuttings which are being rooted on a mild hot-bed. The plants should be wintered in a cool house that is safe from frosts. After the flowering period is over less water must be gradually given, while during winter they need very little indeed.

Solanum giganteum.—Quite a large number of the species of *Solanum* are in cultivation in gardens. The subject of this note is a very handsome and useful plant for sub-tropical gardening or the decoration of large greenhouses and conservatories. In its native country it is said to grow to a height of 16 feet to 20 feet, with

a stem as thick as a man's arm. In the greenhouse at Kew several plants 4 feet to 5 feet high are flowering in 8-inch pots at the present time. The flowers are pale blue, terminal in a compound cyme, but its chief value is as a foliage plant. The leaves are 1 foot to 18 inches in length, 7 inches to 8 inches in width about the middle, tapering to both ends, smooth on the upper surface, tomentose beneath. The stem is also covered with tomentum, older plants being furnished with short prickles. Propagation is effected by seeds or cuttings. The seeds of the plants flowering at Kew were sown early in March. For sub-tropical bedding they should be sown in autumn or January, grown on in an intermediate house, and hardened off the end of May ready for planting out in June. According to "Nicholson's Dictionary" it was introduced from India in 1792. It is figured in the *Botanical Magazine*, tab. 1921.—A. O.

Clematis montana is one of the most delightful climbing plants that flower in early



THE MOUNTAIN CLEMATIS (C. MONTANA).

summer, and one of the best hardy climbers. In May the slender shoots are wreathed with a profusion of white Anemone-like flowers. It is a strong grower, and when once established makes rapid progress, soon reaching to a considerable height. It may be used for covering a cottage porch, as shown in the illustration, or for rambling over tree stumps, arbours, &c.

Callipsyche kewensis.—This interesting hybrid, the result of a cross between *C. aurantiaca* and *C. mirabilis*, is again flowering in the Begonia house at Kew. It flowered for the first time about this season last year, six years from the time of sowing the seeds. The best description of the plant would be to say it is as nearly intermediate between the two parents as it is possible to get a hybrid. The perianth is pale yellow, *C. aurantiaca* being golden and *C. mirabilis* greenish yellow. The

inflorescence has twelve or more flowers on an umbel; this is more than in *C. aurantiaca* and less than *C. mirabilis*, which usually has twenty to thirty. The stamens of the latter are white, and three or four times as long as the perianth, giving it the appearance of a white flower in the distance. The fact that the parents of the hybrid are both flowering by the side of it, adds considerably to the interest. Like some *Nerines* they flower before the foliage appears, making them very useful for dotting amongst foliage plants.—A. O.

Trees in the Black Country.—A scheme of no little interest, and worthy of generous support, has been initiated by the Midland Reafforesting Association for planting trees on the spoil banks in the Black Country. Anyone who has traversed the road from Wolverhampton to Dudley by way of Gornal will have realised something of the former beauty of this district. The object of the association is to prove that plantations are still feasible on the unsightly pit-mounds that cover the land. Last autumn a six-acre plot was planted at Wednesbury and a small model plantation was formed at Old Hill. The extension of the work that is now in progress makes it necessary to employ a paid organising secretary, says *Nature*. To provide funds for this purpose, and to obtain a larger balance than is at present available as working capital, Sir Oliver Lodge, the president of the association, is appealing for contributions. The hon. secretary is Mr. P. E. Martineau, Bentley Heath, Knowle, Warwickshire.

Chrysanthemums at Winchester.—The exhibits in the classes for conservatory plants are always a feature at the Winchester autumn show. I think this is an excellent idea, and one that should be encouraged at shows. Prizes are offered for nine distinct varieties, any section, each plant carrying not less than five blooms, dwarf plants, well clothed with foliage, not depressed or bent, but simply staked upright. Another class is that for white and yellow varieties under the same conditions. There are generally three to five competitors in each class, making a bold and interesting display. The plants range in height from 2 feet to 4 feet, carry foliage close to the pots of a dark green colour, and the plants are furnished with from five to ten high-class blooms, many sufficiently good to enter in the cut flower classes. Incurved varieties, such as *Ma Perfection*, *C. H. Curtis*, and *Lady Isabel* are capitally represented. Other varieties well suited to this form of culture are *Mrs. F. W. Vallis*, *F. S. Vallis*, *Niveus*, *J. R. Upton*, *Guy Paget*, *Mrs. Barkley*, *W. R. Church*, *Miss Mildred Ware*, *Lady Hanham*, *Vivian* and *Morel*, and *Gustave Henry*.—H. S. P.

EXHIBITION OF WINTER-FLOWERING CARNATIONS.

MUCH has been written regarding the question of holding a show of Carnations in winter. It has been suggested that the matter should be in the hands of the Carnation Society, which already exists; but this would be a great mistake. I find many growers would support a winter exhibition if it were carried out more on the lines of the American shows. And there is no necessity to make it quite an independent venture. Co-operation with the Royal Horticultural Society should bring about good results. One special show may be desirable; yet better still would be an arrangement by which Carnations could be made a special feature at one meeting in, say, December, January, and February. We are getting quite a large number of American varieties, and also some of the same type from English

raisers, and it would be both interesting and instructive if we could get more growers to exhibit together, so as to have an opportunity of comparing the merits of the various sorts. If the Royal Horticultural Society did not care to make special provision for a series of shows the Royal Botanic Society would offer very favourable terms if a committee were formed to promote a show or shows.

A. HEMSLEY.

WORKERS AMONG THE FLOWERS.

G. S. SAUNDERS, F.L.S.

A QUIET but diligent worker in the field of science is Mr. G. S. Saunders, who will become more widely known, especially to the Fellows of the Royal Horticultural Society, when he takes up the work of editing the famous *Journal* of that institution. The Rev. W. Wilks has been compelled, we understand, through increasing labours to relinquish that by no means sinecure position, and we wish the new editor success in his appointment. We shall not on the present occasion allude to the work of the late editor further than to say that the society owes much of its extraordinary popularity to his perseverance in re-establishing this invaluable horticultural and scientific journal, and the splendid way in which it has been managed.

Mr. Saunders was born at Wandsworth, where he now lives, in 1842, and was for many years in business with his father, the late Mr. W. Wilson Saunders, at Lloyd's. From his father, who was a well-known naturalist in his day, Mr. Saunders inherited a love of Nature and of drawing, and *THE GARDEN* has reaped the fruits of his wide and varied knowledge. His connexion with this journal began in 1878, when a series of papers on "Injurious Insects" appeared from his pen. Botany, economic entomology, fungi, zoology, and geology have absorbed the spare hours in a busy life, and we shall watch the *Journal* with interest under the new editor's capable guidance. Mr. Saunders is a Fellow of the Linnean and Entomological Societies, has served on the council of both, and is an honorary member of the Royal Horticultural Society.

THE ROSE GARDEN.

AUTUMN ROSES AT KILLERTON.

SOME five years ago Lady Acland decided to convert the terrace in front of the mansion into a garden of Roses, chiefly for autumn display, in place of the ordinary summer-bedding schemes. The terrace is bounded by a low stone wall 350 feet long. Rather more than half of this boundary wall is planted solely with *Duchess d'Auerstaedt*, a free-growing and most charming Rose, with large flowers of red-tinted sulphur-yellow. The remaining portion is covered with a very sweet Hybrid Tea (*Grüss an Teplitz*) growing on its own roots, with flowers of very fair size and vermilion-red in colour.

The plan of the beds is simple, bold, and most effective. There is a series of large beds, 15 feet long and 12 feet broad, bordered with blocks of dark stone slightly irregularly placed, and for the most part each bed contains only one variety, the plants being set out 3 feet apart. The sorts were evidently chosen with great care and taste,

and have grown remarkably well. At the time of my visit, late in the autumn, the beds were each a mass of healthy, glossy foliage surmounted by a wealth of glorious flowers, forming a picture of great beauty. Two of the beds are 30 feet long, just double the length of the others. These are planted with the ever-popular *Mme. Lambard* and *Tillier*. Although usually grown as a wall Rose, *Mme. Lambard* as seen at Killerton makes an ideal bedding Rose.

I was interested in the varying shades of colour in this huge bed. It was difficult to find two plants with flowers of precisely the same shade of colour. The tints ranged from very light to a vivid red. This variation is rather an advantage than otherwise, as it gives a pleasing



MR. G. S. SAUNDERS, F.L.S.

(The new editor of the *Royal Horticultural Society's Journal*.)

variety. In so large a bed planted with one colour there is a danger of monotony. *Tillier*, the occupant of the second large bed, is a comparatively rare variety, and one of which Mr. Coutts, the capable head gardener at Killerton, has a high opinion as an autumn-blooming bedding Rose. It produces enormous quantities of large, globular flowers of brick red colour. The carmine *Papa Gontier* was very bright and good. The buds are prettily tinted. *Anna Olivier* had perhaps the most strikingly healthy foliage of all. This is an earlier variety, but it bore abundant evidences of previous floriferousness. The rose-tinted *Marie van Houtte* was full of flower, and made one think it was midsummer instead of past Michaelmas.

Mme. Laurette Messimy was one of the best of the China Roses, and bore quantities of useful buds; many of the half-blown flowers were unusually double. The coppery yellow *Dr. Grill* had rosy and salmon centres—an unusual combination. Next came the deeper-coloured *General Schablikine*, a variety at one time largely grown on the Riviera.

Prediletia is a charming variety, earlier in flowering than the others, but, unfortunately, it does not stand damp weather. *Princesse de Sagan*, with its velvety crimson flowers, struck a deep rich note in the harmony.

THE NEW GARDEN.

Last year the Rose garden was greatly extended. The newer portion is laid out in two

pairs of very long beds, about the same width as the others. These beds are sub-divided by low hedges of *Rosemary*, while pillar Roses are planted along the centres at intervals of 14 feet. The beds are filled with more varied sorts, and they promise to be a striking feature and a valuable addition to an already beautiful garden. In all just about a hundred varieties are grown. It is too soon to speak of the pillar Roses, but amongst the bedding varieties many have already made their mark and nearly filled the space allotted to them.

Le Progrès, a rich apricot, is an especially good new variety. All, or nearly all, the sorts already mentioned are planted in the new garden, and in addition the following are especially noteworthy: *G. Nabonnand*, a lovely shade of rose colour; *Queen Mab*, apricot yellow, shaded with a charming mixture of pink and orange; *Mme. Pernet-Ducher*, with papery white petals, very striking and uncommon.

La France is still one of the very best Roses. *Souvenir de David d'Angers* is very similar to the bright red *Marquise de Salisbury*, but even better.

Last year's Continental sensation, *Etoile de France*, is very bright and good, and promises to come up to its reputation. Both *Eugenie* and *Leonie Lamesch* are very desirable varieties, and in Mr. Coutts' opinion *Fran Karl Druschki* is the finest and most free Hybrid Perpetual they have.

A fence has just been completed for a collection of Sweet Briars and Lord Penzance's hybrids. In a very few years this will, no doubt, be as attractive and interesting as the remainder.

A. C. BARTLETT.

ROSES FOR BEGINNERS.

(Continued from page 352.)

SINGLE AND SEMI-DOUBLE ROSES.—*Bardou Job*, a climber of moderate growth, with intense crimson flowers, which have a shading of almost black; *Hebe's Lip*, a very strong-growing Rose, white, with margin of carmine to the petals; *Macrantha*, a beautiful single Rose, white, with rich yellow stamens, strong in growth, a half climber; *Pomifera*, the flowers blush in colour, followed by deep crimson hedges; *Sinica Anemone*, a moderate climber, in colour pink; and *Una*, buds apricot colour, but when expanded the petals are white, a very beautiful Rose.

Provence.—Included in this group is the Old Cabbage Rose, *White Provence*, *White de Meaux*, and *Spong*, pink.

Moss.—Common, *Lanei Little Gem*, very mossy, crimson in colour; *Blanche Thoreau*, pure white; *Mme. Edouard Dry*, rose-carmine; and *Perpetual White Moss*. This quaint little group is seldom planted now, but we have still an affection for the flowers hidden in their mossy nest.

Austrian Roses.—Though these are flowers of short duration, they are delightful in full beauty. No Rose garden should be without a bush or bushes of *Austrian Yellow*, *Austrian Copper*, the double yellow *Harriotti*, and the Persian yellow. Add to these the rosy-coloured *Perpetual Scotch* Rose called *Stanwell Perpetual*.

Damask, Alba, and Gallica.—Of the alba class, which contains sorts of moderate growth, the two most welcome are *Celestial* and the *Maiden's Blush*, the latter seen in many English cottage gardens. The former is a rare variety, with double pink cupped flowers of refreshing sweetness. *Rosa Mundi* is the principal sort in the Gallica group, and has striped flowers. It has been for this reason frequently confounded with the true York and Lancaster.

Dwarf Polyantha.—This is a class that should be made more use of. The sorts are numerous, and make quite little bushes, which are covered with flowers both in summer and autumn. Those we should choose are: *Anne Marie de Montravel*, wavy flowers of purest white—this should be the first to purchase; *Cecile Brunner*, brilliant rose with yellow centre, very free; *Etoile d'Or*,

lemon; Gloire des Polyantha, rose with white centre, exceptionally free; Mignonette, a pretty flower with a pretty name, opening of a delicate rose colour which passes to white; Paquerette, double white; Perle d'Or, orange yellow, a dainty little flower of perfect form; and Mme. E. A. Nolte, whose chief charm is in the chamois-coloured buds. Besides these there are Rosa lucida and its double variety plena, which have shining leaves and a wealth of scarlet hips, and the Rugosa or Japanese Roses are amongst the most easily grown of all. The double white Blanc Double de Coubert and Mme. Georges Bruant, the fringe-petalled Fimbriata, the red semi-double Mrs. Anthony Waterer and Conrad F. Meyer are all of great garden value. The last-mentioned is a thorny Rose, and sends up strong, straight and tall shoots, bearing before any other sort immense silvery rose, sweet-scented flowers. It is a Rose to keep within bounds, else will it smother everything near it.

Rambler Roses.—These are divided into several groups. Taking them alphabetically, the Ayrshire kinds and hybrids are the first to consider. Of these the best for the garden are Alice Gray, white with pink edge to the flowers, the well-known Bennett's Seedling, with small, white double flowers, Dundee Rambler, white, and Ruga, flesh coloured. These are all useful for running over trees, pergolas, and arches. The multiflora race, with the hybrids, is very large and interesting. We advise a selection from the following: Aglaia, or the Yellow Rambler, Blush Rambler, Claire Jacquier, small, nankeen-coloured flowers, the Crimson Rambler, Electra, double yellow, Euphrosyne, or the Pink Rambler, Polyantha grandiflora, the rose-pink Payche, Thalia, or the White Rambler, and Wallflower, rose-crimson, a hybrid which for profusion of flowering is unequalled. Also of value for the same purpose are the beautiful Musk Rose (*Moschata nivea*), the Garland, which is a cloud of white in summer, Félicité Perpetue, creamy white, Dawn, pink, Flora, flesh-coloured, Myrianthes Ranuncule, rosy blush, Carmine Pillar, single, carmine, Blairii, flesh, Penzance Briars Amy Robsart, Anne of Geierstein, Lady Penzance, and Meg Merrilies, Alister Stella Gray, pretty apricot buds opening white, Gloire de Dijon, Bouquet d'Or, Billiard et Barre, the flowers orange, growth moderate, Dr. Rouges, dark foliage and crimson flowers, Gustave Regis, moderate in growth, flowers very beautiful, white touched with Apricot, Mme. Alfred Carrière, white, the apricot-coloured W. A. Richardson, and the old garden climber Rêve d'Or.

Japanese Roses.—With the advent of the now famous Rosa wichuraiana a new era seemed to dawn in the Rose world. At the present time we have many beautiful hybrids, which sometimes run along the ground, so to speak, or wreath the pillar and pergola with their glossy leaves and trails of flowers. The type is of great use for covering a sunny bank. It grows with great rapidity, and its strong, leafy shoots seem to run through the grass, against which the creamy white flowers are plainly seen. It is as well not to forget the original wichuraiana in the desire for the hybrids. But no Rose

garden is in any sense complete without, of course, Dorothy Perkins, the beautiful Alberic Barbier, Francois Foucard, the exquisite creamy yellow Jersey Beauty, the rosy Paul Transon, René André, and Pink Roamer.

The foregoing selections may appear to the advanced Rose-grower very incomplete, but it is rather the beginner we have in mind in making them; at least there is the commencement of an interesting Rose garden if all the sorts here named are chosen.

MILDEW-PROOF ROSES.

It is a curious fact that in no work on Roses with which I am acquainted is a list of varieties given which are mildew-proof, and yet, now that Roses are so much used for bedding purposes, it is really of the utmost importance to select only the cleanest and healthiest plants for prominent beds in the flower garden. There is nothing more unsatisfactory than a bed of Roses smothered with mildew, for even if the flowers are not much affected (which is seldom the case) the foliage is so unwholesome-looking that all hope of a good effect is destroyed. "A. D." raises a most interesting point on page 289 when he asks, "What are the properties of those varieties which are unaffected by mildew?"

An answer to this question would be welcomed by rosarians all over the country.

Of course there is no doubt that it is the hard, shiny, well-glazed leaves on which mildew is unable to effect a lodgment. Mme. Jean Dupuy and Sinica Anemone afford a striking illustration of this fact. However, this alone does not solve the problem, because it will be seen that in the list of mildew-resisting Roses which I have compiled

several varieties are included whose foliage is not particularly shiny or well glazed. I do not claim that this list is in any sense a complete one, nor have I included any species, many of which are, of course, quite immune from mildew.

In order, however, to make this list as complete and comprehensive as possible I would ask readers of THE GARDEN to send the names of any other varieties of Teas, Hybrid Teas, and Hybrid Perpetuals which their experience has shown ought to be included.

Tea-scented.—Mme. Jean Dupuy, Mme. Berkeley, Lucy Carnegie, Morning Glow, G. Nabonnand, and Peace.

Hybrid Teas.—Mme. Edmée Metz, Annie Marie Soupert, François Crousse, Lady Waterlow, Mme. Chas. Monnier, and Güss an Teplitz.

Hybrid Perpetuals.—Duke of York, Mrs. Rumsey, Ulrich Brunner, Paul Neyron, Mrs. Geo. Dickson, and Mme. Clemence Joigneaux.

The Elms, Kidderminster. A. R. GOODWIN.

NOTES ON HARDY PLANTS.

THE WHITE ALGERIAN IRIS.

COMMONLY known as *Iris stylata*, the many varieties of the beautiful Algerian Iris (*I. unguicularis*) are undoubtedly among the most popular and valuable open-air winter-flowering plants we have. Planted at the foot of a warm south wall in light, well-drained soil,

they will often commence flowering about the end of October, keeping up a succession of lovely flowers throughout a mild winter. This Iris increases rapidly, soon forming large tufts of leaves, although for a time after moving it is somewhat slow in making a start. When, however, it is established and given the above favourable conditions it will produce an abundance of flowers. In damp, heavy soils *Iris unguicularis* will not flourish, although it will sometimes survive the winter in an open border. In this latter position, however, it rarely flowers. The illustration shows a flower of the white variety, which was discovered some years ago in Algeria, and which has become fairly common in gardens. It has the erect, broad leaves of the typical lavender-coloured species, and the flowers are often partly hidden by the foliage. This may be considered a defect by some, but the delicate flowers in this case receive a certain amount of protection against wind and frost. The white form is somewhat later in coming into flower than the type, and on the whole not so floriferous, but it is well worth a place in the smallest garden. Perhaps the finest form with the largest and richest-coloured flowers is the variety *speciosa*, with



A WINTER-FLOWERING IRIS (*I. STYLATA ALBA*).

narrow leaves and deep purple-blue flowers produced well above the foliage. Another very free-flowering form, with paler-coloured blooms, is the variety *angustifolia*. There are other named forms of various shades of colour intermediate between those mentioned which have been raised from seed, but the above four comprise the most distinct. For indoor decoration the sweetly-scented flowers are invaluable in the winter time, when there is little else in the garden besides the Christmas Rose. The blooms should be cut just before they open, when they will expand freely in water undamaged by the cutting winds or frosts. The Algerian Iris is a plant of easy culture, and might be used with advantage in many places at the base of walls with a southern aspect, as when not in flower the foliage is never untidy, but possesses a neat evergreen habit. W. I.

THE WINTER DAFFODIL.

(*STERNBERGIA LUTEA*.)

THIS is one of the few bulbous plants which produce their flowers in autumn, and for this reason they are doubly welcome. About the time when early frosts have spoilt most of our summer flowers the rich yellow flowers of *Sternbergia* are at their best. The flowers are produced in abundance. In some districts I believe it does not bloom very freely, and is generally supposed to require a sheltered position. Here it grows in a bed on the open lawn, and each year produces a good display of flowers. It is a native of Central Europe, and is supposed by some to be the "Lily of the field" of Scripture. E. J. ALLARD.

Botanic Garden, Cambridge.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

BLACK HAMBURGH VINE OUTDOORS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I send you a photograph showing a wonderful yield of the large purple clusters of the Black Hamburgh Vine, which is growing against a little house near the Hammersmith Road. It is



BLACK HAMBURGH GRAPES OUTDOORS AT HAMMERSMITH.

the result of a shoot taken from the Hampton Court Vine, and more than 200 bunches have been gathered this year.

145, Hammersmith Road, W. J. BUNNETT.

YUCCA GLORIOSA.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—You may think the enclosed photograph interesting enough for THE GARDEN. It was taken by myself. The plant was photographed in August; it was one of two growing in the front garden of Mr. J. Packham, Leigh Mill, Cuckfield, who, though a dusty miller, is very enthusiastic in all gardening matters. The two plants were both flowering at the same time, the top of each spike of flower was about 10 feet from the ground. They were growing one each side of the entrance to the house. I photographed the two, showing the entrance, but to include both I had to get a distance away, so that the effect of the size was not so apparent. They were each growing in a circular bed with a groundwork of tuberous Begonias, and were objects of much interest to passers by.

J. HARDING.

The Gardens, Highlands, Bolney, Sussex.

STONELESS GRAPES ARTIFICIALLY PRODUCED.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I have just read in "My Garden in the City of Gardens" that in Cabbol they have stoneless Grapes, produced artificially by making an incision about 8 inches long in the wood of the trained Vines, removing the pith, and binding up the wound, the result being that the Grapes are stoneless. It is well known that old trees often have pipless fruit, e.g., Oranges, &c., the pith cavity being gradually obliterated by the growth of the woody tissue I suppose. Might not this be tried on Currant trees? A pipless Currant would be a valuable addition to our fruits. S.

[With regard to the artificial production of seedless fruits by the method described, viz., the partial removal of the pith through an incision in the wood, the growth of exogenous tissue, to which Vines belong, cannot produce a removable pith from the centre independently of the ring or rings of wood which the bark surrounds. As it is from the outer ring of wood forming cells that the buds originate which develop the leaves and fruits, it is difficult to understand how the process is effected. The production of seedless Oranges by old trees can, for the same reason, not be imputed to a pith cavity being obliterated by the growth of woody tissue, since normally no such cavity would exist, and, finally, it is very much to be doubted if the central portions of a stem or branch play any material rôle in the general growth and development of foliage or fruits, for reasons given above. The deterioration or obliteration of the seed in such fruits as the Cucumber and Banana appears to be due to abnormal development of the pulp portion of the fruits, the reproductive energy being converted into vegetative energy at the embryo seeds' expense, precisely as in some abnormally foliaceous Ferns the spores are either aborted or entirely absent. Under these circumstances some more definite data are requisite to establish even *prima facie* evidence that the stoneless Grapes referred to owe their barrenness to the process described, and especially would it be essential to establish the fact that, if the process be omitted, the Grapes are normally fertile, since they may be a seedless type obtained by selection like the Sultan Grapes, and the incisions made only increase the fruiting capacity in the same way as partial ring-barking is known to do.—ED.]

A CURE FOR MILDEW.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Now that the time for growing Roses under glass is approaching, perhaps a few words given in advice may serve to help

rosarians from much labour. I do not mean to try and tell how Roses should be grown, but how a great deal of worry, both physical and mental, may be abated, or, indeed, I hope, checked. One of the worst, perhaps the worst, of all the pests is mildew. If it is once seen, the rosarian, either indoor or outdoor, must double his energies if he wishes to stop its ravages. Various lines of treatment have been put forward. Flowers of sulphur, sulphide of potash, and a few more have



YUCCA GLORIOSA.

been tried, but still mildew is there nearly as bad as ever. Now, I want to ask all your readers, big and little, nurserymen and amateurs, to try what has proved itself a great benefit to me and anyone who has tried it. Let them try "Lysol." This preparation has been on the medical market for some time as an antiseptic, and is recognised by most medical men as being thoroughly trustworthy for all purposes. It can be bought in any good chemist's shop, or can be got by them in bottles of various sizes. The fluid can be mixed in any proportion with either hot or cold water. It sometimes, when added to water, turns the water to a milky fluid, but itself is not in the least weakened. The method of application that I have tried and advised is to mix 1 or 2 per cent. of fluid in a basin of cold water, though under glass no doubt lukewarm water is to be preferred, and spray all the affected places thoroughly. I generally go over all places which still look bad again in about a week. If the mildew is very bad and localised, then I take a cotton wool swab and dip it in the solution, and thoroughly rub both sides of the foliage. One Rose grower has said that it badly affects Tea buds if used too strong, but no one I have met has replied in the same way. This spraying was used rather extensively in Messrs. Alex. Dicksons and Sons' nurseries, and I am told that it was "good." Dr. Hall tried salicylic acid, but tells me that this acid will surely kill the tree, but I believe he speaks well of "Lysol." I trust that your readers will all give it a trial and let

us know their results. One thing I will guarantee is that it will do plants no harm, and if they only will try it, as I have tried to tell them, I feel convinced that mildew will be in future found to be no longer a dreaded pest.

O'DONEL BROWNE, M.D.

Portnagrena, Naas, County Kildare.

WINTER-FLOWERING PELARGONIUMS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Zonal Pelargoniums or Geraniums have been special favourites of mine for a number of years, and the paragraph referring to the Woodhatch collection, which appeared on page 314 (November 18), was most interesting. If, however, the concluding statement that the twenty varieties named "would be difficult to excel" is intended to mean that they comprise the best twenty, I must differ. In my opinion the best zonal—if that honour may be attributed to any one variety—is Hall Caine, which finds no place in the list quoted. It certainly deserves a place among the best half-dozen. For robust habit and constitution, size of truss and pip, cheery colour, and freedom of flowering it stands pre-eminent. J. M. Barrie and Princess Alex are both far superior to the old favourite Phyllis, which they resemble in colour, but excel in size and form.

Among the crimsons named, Nicholas II. and King of Crimsons so closely resemble each other that one of them should give place to a more distinct variety. Dr. McDonald or John Forbes would either of them fill the gap to advantage. Then why have seven scarlet and crimson sorts? Would it not be better to reduce that number to make room for a distinct colour such as is found in Iris? Many times I have heard it said that Iris is the most beautiful zonal for colour extant, and few, if any, are capable of throwing finer trusses. Lady Chesterfield might certainly come out from the list of the twenty, to be replaced either by the pure salmon Ian McLaren or the salmon-rose Mrs. D'ombrain.

Is the variety quoted Mr. Tudway intended to be Mrs. C. C. Tudway, or is it a new-comer? Mrs. C. C. Tudway is a variety of charming colour, but with me has always been somewhat "miffy" and addicted to damping. I trust my little friendly criticism may not be taken amiss. We do not all see or think alike, and a free expression of opinion is often beneficial.

Neston, Cheshire.

HEATHER BELL.

POTATOES NOT DECAYING.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Your correspondent "G. H." may be correct in attributing the condition of some Potatoes after planting to the disease known as "leaf-curl" or he may not, but one thing is certain, viz., that his remedy—that of sprouting the tubers well in shallow boxes before planting and picking out and discarding those which either fail to sprout or sprout weakly—does not always lead to the detection of all those which will fail to decay properly in the ground, as I know from sad experience. The "seed" tubers which I planted in 1904, and also last spring, were well sprouted, and by this I mean they had been set out in shallow trays for the purpose, receiving plenty of light and air for a few months before planting. During the early summer of 1904 I noticed many plants of an early sort which, instead of making healthy growth, appeared to have come to a standstill, and with a view to finding out, if possible, the cause I dug several up. I was surprised to find that in many cases the fine, sturdy sprout, which had been made before planting, had not made any further growth, but, instead, a poor weakly sprout had pushed out from its side and sent up a slender stem topped by a few sickly-looking leaves. Some such plants I replaced by other tubers I had on hand, but the crop eventually was only about one-third of an average

one. I may say I tried slicing a bit off some tubers before planting last spring, and either as a result of that process, or from some combination of circumstances of which I know nothing, neither the sort which suffered so badly, as above stated, during 1904, nor any other sort I planted has been as badly affected during the past season. Let it not be supposed, however, that I regard cutting the tubers as anything approaching an infallible remedy, for I must admit that many of those which I cut came out of the ground as firm as when they were put in. That some effectual means of dealing with the troublesome disease is necessary and desirable, all growers of the useful tuber must admit. I hope you will keep your correspondence columns open for further expressions of opinion upon this important subject.

W. B.

CARNATIONS IN WINTER.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—The notes that have appeared in THE GARDEN recently show the interest that is springing up in these lovely winter flowers, and rightly so. On page 298 "A. D." makes some good suggestions regarding an exhibition of these in winter. He points out their beauty at the Crystal Palace in contrast to the Chrysanthemums. Although I had not the pleasure of seeing them in this way, I saw them in the first half of October in great beauty in Mr. Mortimer's nursery at Farnham. Recently I was asked if I thought these winter-flowering varieties had come to stay, and I said "Yes, most certainly." The true value of most plants is seen when they are growing, and this applies forcibly to these winter-flowering Carnations. I have seen nothing approaching the plants at Mr. Mortimer's for vigour. As I passed through a long span-roofed house, taking notes of the best for colour, I could not see a weak or poor plant, and this is what is wanted in a winter-flowering plant, especially as the climatic conditions are against them. I also noticed that the later batches were equally as strong. Winter Carnations are, indeed, preferable to Chrysanthemums. Some may think, perhaps, there were only a few flowers, but so free were the plants that hundreds of blooms could have been cut at the time of my visit. Judging by the strong growths then showing bloom the same plants would continue in flower for months. Another recommendation is the long and stiff stems and large flowers, so unlike the old type of Carnation. The fine batches of plants to be seen many years ago of Winter Cheer, Miss Jolliffe, William Robinson, and others of this type, all beautiful in their way, are now eclipsed. Undoubtedly it would increase interest in Chrysanthemum shows to give more encouragement to Carnations. Recently I was told of a man who made £300 from these in a season.

Chard.

J. CROOK.

COSMOS BIPINNATUS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—The illustration of this beautiful plant, as grown in Portugal, in THE GARDEN of the 2nd inst. reminds me of my admiration of it and my failure this past season to bring it into flower in my private garden at Kew. In several places at Littlehampton, Sussex, it was flourishing towards the end of November of last year, and in a nursery between Littlehampton and Arundel there were the somewhat battered remains of what must have been a very fine display. I was so attracted by the elegant foliage and showy flowers of this annual that I resolved to try it in my own garden. Accordingly I procured seed, sowed it, and tended the germinating plants myself. I had only about eighteen plants, raised in a box, and these I planted out at the beginning of June in six groups of three, in very different situations as to direct sunlight and aspect. I sprinkled a little artificial manure on the surface and watered them. After this I was unable to attend to them myself, but my assistant did his best, and the plants

grew and flourished amazingly. Those under the most favourable conditions attained a height of above 8 feet, but they never produced a flower before the sharp Monday night's frost in October made it impossible for a flower to be produced. Apart from the flowers, *Cosmos bipinnatus* is a most beautiful and graceful plant, especially when of the dimensions named. Nevertheless, I was disappointed at getting no flower. Perhaps some readers of THE GARDEN may be able to prescribe a mode of treatment that would bring a better result.

Bournemouth.

W. BOTTING HEMSLEY.

THE FRUIT GARDEN.

A MELON WORTHY OF PRAISE LORD DERBY.

IT is somewhat disappointing to those who must keep up considerable supplies of good Melons for their employer's table to find, after a trial of a year or so, that so many of the numerous new Melons put into commerce every year—and many of them, too, having the brand of merit of the Royal Horticultural Society attached—are much inferior to some of the older varieties, and have to be discarded as rubbish. At least, this has been my experience with many of the new Melons introduced during the last few years. It may also be the experience of other growers. The one, however, under notice is an exception. I know not if this new variety, Lord Derby, was brought before the wise twelve who sit in judgment on all the fruits that are sent up to the Royal Horticultural Society. If it did it does honour to their united wisdom, and goes far to make amends for errors in giving awards to fruits that do not deserve it. In Lord Derby we have a Melon good in every way; it is slightly oval in shape, will, when well grown, weigh 5lb. to 6lb. apiece, it is finely and thickly netted, and rich citron in colour when fully ripe. The skin is thin, and the flesh of the richest salmon colour, melting, of sugary sweetness, and with a decided Pine-apple flavour. In these latter respects it reminds me of an old Melon that we used to grow largely in the late sixties and well through the seventies on the old hot-bed system. It was called Reid's Scarlet Flesh. It was one of the best-flavoured Melons of its day. The variety Lord Derby is a good grower and a free setter.

Knebworth.

J. KIPLING.

NEW VARIETIES OF PERPETUAL FRUITING STRAWBERRIES.

SOME remarkable improvements have been effected in the large-fruited "perpetual" Strawberries upon the sorts first placed on the market. Among the latest varieties we must note Merveille de France, a novelty of 1905, obtained by M. Louis Gautier, the clever and painstaking Strawberry grower, to whom we are indebted for several very good sorts. This Strawberry (Merveille de France), the result of a cross between Louis Gautier and Saint Antoine de Padoue, forms a vigorous and robust plant, with thick, deep green leaves, above which the flowers rise on strong stalks. The berries, which are rather flattened, and number from twelve to fifteen on each stem, are remarkable for their beautiful bright red, firm flesh, and especially for their size. In the manner it is produced, and in the form of its fruit, Merveille de France resembles Louis Gautier. It is also very hardy. It fruits in August and September (August especially), and appears to bear great heat well, as the flowers do not scorch in the hot sun as those of some varieties do. We consider the Merveille de France to be an excellent acquisition for private gardens, as well as for market growers. Thanks to its size, and to the clear colour and firmness of its flesh, it is to be presumed that this fruit will

be much appreciated by fruit merchants and in the market, for in addition to its beauty it travels well, and this is a valuable quality.

The variety *Souvenir Normand* (also raised by the same grower) is the result of crossing the varieties *Cyprano de Bergerac* and *Constante-Feconde*. It forms a compact plant, the rigid stems of which stand well up from the foliage, and bear an abundance of fruit of a carmine-red colour, and of the first quality. The crop is heaviest in June, and continues throughout the season until the cold weather. It produces fewer flower-stems than its parents. This Strawberry is less fruitful, and the berries are larger; it is also more vigorous, and hardier. The variety *Arlotte de Normandie* is distinguished from the two preceding by sending out fewer runners. It forms equally compact tufts, covered during the season with flowers and fruit. These latter are of fine size, of an intense bright pink colour, and of so delicate a flavour that they will be appreciated by all who love well-flavoured fruit.

RENE DESJARDIN, in *Le Jardin*.

THE FLOWER GARDEN.

MECONOPSIS RACEMOSA.

DURING recent years the genus *Mecconopsis* has come rapidly to the front with lovers of hardy flowers, and not the least beautiful member is the one shown in the accompanying illustration. This clearly shows the racemose inflorescence, consisting of numerous rather large flowers varying in colour from deepest purple to palest lilac. The radical leaves are broadly lanceolate, entire and thickly clothed with longish hairs so clearly depicted in the illustration. Generally speaking, the *Mecconopsis* like plenty of moisture at the root, and not too much overhead. Turfy loam, leaf-soil, and peat with plenty of sharp sand, form a suitable compost. Plenty of light is essential, but the plants should be so placed as to escape the full glare of the midday sun. Given these conditions the *Mecconopsis* will reward the cultivator with a wealth of untold beauty.

Ness, Neston, Cheshire. J. W. BESANT.

VIOLETS AND HOW TO GROW THEM.

[In reply to "Fox" and other correspondents.]

THE desire to grow Violets successfully is keen among those who have a garden. Many amateurs are successful, while on the other hand there are many who fail, as is evident from the complaints and enquiries constantly received. There are several causes of failure. The most fertile, I think, is in not giving close attention to the requirements of the plants during summer when in active growth, and without

which it is impossible to grow strong, healthy plants that will give a profusion of flowers during autumn and winter. Another frequent cause of failure is in allowing the plants to become infested with insect pests, red spider being the great enemy of the Violet, and if not quickly destroyed it simply ruins the plants in a very short time. These two essential conditions being secured, the proper culture of the Violet is quite simple, and without them impossible.

It is necessary to look ahead for some time before the actual work of cultivation begins. The present is an excellent time to make a start, and the first thing is to select the site and prepare

too deeply: Half a cart-load of well-decayed manure, the same of leaf-mould, together with a bushel of quicklime. This quantity should be applied to each pole of land. If leaf-mould cannot be had its place must be taken by manure. The soil having been prepared for the reception of the plants in spring, we will now turn our attention to the propagation and growth of the plant, first treating of the double-flowering section, or the Neapolitana, as they are usually called, such as *Marie Louise*, *Lady Hume Campbell*, &c.

The stock plants from which to obtain young plants next year are those which are now flowering in the frames. If the plants are healthy and

strong abundance of young runners will be available in March; but should the plants be weakly and out of health they should be taken great care of, by being kept cool, and exposed to light and air on every favourable occasion, so that they may be in condition to supply healthy and strong runners when wanted. There is no chance whatever of being able to bring such plants round to a flowering condition this winter. The time to take the runners I have found to be the first or second week in March, and the best way of doing this is to take the old plant up by the roots, shake off the soil, and with a knife cut off each offset or runner, taking care to preserve any roots which may attach to it. They will grow without having these roots, but will succeed better with them. The next process will be to provide as many small pots (2½ inches diameter) as there are plants wanted, fill them with soil composed of loam and leaf-mould in equal quantities, adding a good sprinkling of coarse sand or road grit. Dibble the tiny offsets in the pots as if inserting cuttings, pressing them firmly into the soil and giving a good watering. The pots afterwards should be placed close together in a frame not more than 10 inches from the glass. They should be shaded from direct sunshine, and given little or no air for the first three weeks, and be well syringed morning and afternoon. When they have formed a quantity of new roots shade must be gradually discontinued and more air admitted. Towards the end of April the lights should be taken off altogether day and night, and only placed on the frame in the event of cold nights being experienced. Syringing twice a day, as before recommended, should



A BEAUTIFUL POPPYWORT (MECONOPSIS RACEMOSA).

the ground ready for planting next spring. No better site can be found than a border in the kitchen garden facing east, with a wall behind. If this is not available the next best position is one where the plants can have the benefit of the morning sun and are shaded from extreme heat at midday. The Violet will succeed in any garden soil which has been in cultivation for some years. The single varieties, such as the *Princess of Wales*, will succeed better in a stiffer and heavier soil than the more tender double ones. Therefore, if there is a holding soil and a light soil in the same garden, let each have its preference. Trenching the ground should be done as soon as possible, leaving the surface afterwards rough and exposed to all the frosts and snow of winter. The land should be trenched at least 2 feet deep, and the following added at the same time, not burying it

be continued until the plants are planted out in the prepared border, and of course they must receive timely and careful watering. By the first or second week in May the offsets will have grown into sturdy plants, and should then be carefully planted in the border prepared for them. They should be planted in rows 18 inches apart, allowing 15 inches between plant and plant in the row. The soil should be pressed firmly round them, and a good soaking of water immediately given. Summer treatment consists in giving occasional waterings in dry weather, frequent hoeing to aerate the soil and to keep down weeds. Cut off the tiny runners which will form (something like the Strawberry does) until the end of July. After then it is better to allow them to grow. The surface of the ground between the rows should receive a dressing of

manure about 3 inches thick. This will be of great service to the plants in feeding the surface roots and in keeping the ground moist.

By the end of September they will have formed large sturdy plants from 9 inches to 1 foot across, with abundance of roots, and should then be removed from the border to the frame for autumn and winter flowering. The frame should be slightly elevated above the ground on a foundation of manure or leaves, and should be placed in a sunny position and filled with light soil (having a good admixture of leaf-mould) to within 1 foot of the glass. It will be found that the plants when taken up will have masses of soil attached to their roots; these must not be much reduced or the plants will suffer injury. They should be planted near together, leaving only space enough between to admit of a little new soil being placed round the roots, which must be firmly pressed. When planting is completed the tops of the leaves should be about 6 inches from the glass, and the plants must receive a good soaking of water as soon as the planting is finished. Syringe the plants on the afternoon of fine days, not in dull cold weather. Keep the lights off day and night whilst the weather is fine until about October 20. After then it will be safer to have the lights on, still giving abundance of air when the weather is favourable. Protect from frost by covering the frame with litter or mats, but never lose an opportunity of giving the plants the advantage of any sunshine and warm air in the middle of the day, even in hard weather in midwinter.

I have found the following to be the best and surest way of keeping the plants free from red spider and also from the Violet fungus or rust, which is often of much trouble to the Violet grower. Before the young plants are turned out of their pots at planting time in May, it generally happens that some traces of spider are found on them, and if not at once destroyed will eventually ruin the plant. To make sure of their destruction every plant should be dipped in the following solution, leaving the mixture to dry on the plants until next morning, placing them in a shady place. They will then be rid of any living insect or fungus, and will probably remain so during the summer. Half a pint of soft soap, the same of flowers of sulphur, a quarter of a pint of paraffin, and half an ounce of fine Tobacco dust. Mix the whole well together in warm water to the consistency of thick paint, afterwards adding two gallons of hot clear water to the mixture. When cold the emulsion is ready for use. The same method of culture should be followed in the case of the single and hardier varieties.

The best double varieties are Marie Louise, Lady Hume Campbell, and Mrs. Astor; the best double white is Comte de Bazzza; the best singles are Princess of Wales, Princess Beatrice, and La France.

OWEN THOMAS.

THE SCARBOROUGH LILY.

EACH season various notes on this beautiful bulbous plant appear, but it cannot be overpraised when the beauty of its blossoms and its simple cultural requirements are taken into consideration. This latter remark applies to the old-fashioned Vallota of our gardens, for of late immense numbers have been sent annually to this



THE SCARBOROUGH LILY.

(VALLOTA PURPUREA.)

potted in a soil consisting of good sandy loam, which will remain sweet and fresh for years. The pots employed should be small and well drained, as the object is to obtain plenty of healthy roots, and this will not be the case if large pots are used. The Vallota very much resents being disturbed at the roots, as many a one has found to his cost, for if large entangled masses are broken up and repotted it is generally done at the expense of many blooms. Vallotas, like their near allies the Nerines, flower best when the bulbs are so closely packed together that they almost lift each other out of the soil. Both the foliage and flower-spikes of these imported bulbs are in many cases tall and weak. The flowers of the imported bulbs show a considerable variation in colour, and to a less extent in the shape of the flower, some having much broader segments than others, and consequently a far

rounder flower is the result. Some, too, are very rich in colour; others have rather a conspicuous white or whitish centre, and a few are salmon-pink.

satisfactory manner. These imported bulbs usually reach here in a dormant state in July or August, when they should be at once potted and kept cool and fairly dry during the winter. Then, owing to the change of seasons, many of them will push up flower-spikes about the month of May following. Some years ago at the Temple Show there were some well-flowered examples of Vallota. These imported

bulbs frequently decay from what appears to be an excess of moisture, however dry they may be kept. Perhaps this tendency is to a certain extent generated by being confined in a close box during the journey to this country. Imported bulbs should when received be cleaned over and

country from South Africa, and they frequently fail to become established in a few are salmon-pink.

P.

GARDENING FOR BEGINNERS.

SIMPLE HINTS.

CHRYSANTHEMUM CUTTINGS.—The best method of increasing Chrysanthemums is by means of cuttings, and the time when they should be "taken" depends upon what time the grower wishes to have his plants in flower. For growing plants for greenhouse or conservatory decoration the cuttings should be put in during December and January, whenever in these months good ones can be had. One of the most important points to bear in mind when taking the cuttings is to get them from the base of the plant, coming through the soil, and not from the stem itself. Some varieties produce ground cuttings so sparsely that sometimes one must take them from the stem. A cutting should be from 2 inches to 3 inches long, and should be cut off with a sharp knife immediately below the point where a leaf joins the stem. The bottom leaf should be cut off close to the stem as shown in one of the accompanying sketches. Before taking the cuttings small pots should be prepared for their reception. Having washed them clean (if this is not done the roots will stick to the sides of the pots when the rooted cuttings are subsequently turned out and will suffer damage) and placed a few broken crocks in the bottom for drainage, fill them with a soil made up of equal parts of loam, leaf-soil, and coarse sand or road grit, which have been previously passed through a small meshed sieve. The soil must be made fairly firm. Cover the surface with silver sand, so that when the hole is made for the cutting the sand will fall into it, and the base of the cutting will thus rest on sand, which materially assists it to root. Make the hole for the cutting with a blunt pointed small stick, take care that the base of the cutting is at the bottom of the hole, make it firm at the base, and gently tap the pot on the bench to settle the soil. The best place in which to put the cuttings after all are in the pots is in a cold frame containing ashes, in which the small pots may be plunged and be within

9 inches of the glass. Protect from frost with mats. Admit a little air on mild days. Cuttings may be rooted easily if plunged in ashes on a staging in the conservatory.

Early Chrysanthemums. Many are perplexed as to the treatment that should be given to the old roots or stools of the early-flowering Chrysanthemums. A number of the better sorts will winter well without any protection, especially if the

sucker-like underground growths that are peculiar to the Mme. Marie Massé family of the early-flowering varieties have been made. Each of the members of this family, as well as others that can trace their parentage to this excellent sort, will perpetuate themselves quite easily in the spring by division of the old stools. Unfortunately, a large proportion of the cultivated sorts of to-day are not so hardy as the Massé family. Rather than run any risk with many of these fine early Chrysanthemums, lift the best, and plunge the old stools in some light sandy soil in cold frames, pot-frames, or any glass structure that will afford protection. Better still, however, would it be to plunge the old stools in a similar soil, making up a bed on the side benches of a cold or cool greenhouse. All that is really necessary is to protect the growths at this period from the frosts. Treated in this way, the plants should bristle with growths at the turn of the year, and towards the end of January the first batch of cuttings

purple; and Lady Mary Conyers, rosy pink. This is easy to grow. This plant is 3½ feet high, and the others are 4 feet.—D. B. C.

Various Hedge Plants.

I was visiting a garden some years ago on the banks of the Mersey late in autumn, and saw Escalonia macrantha forming one of the most delightful hedges I have ever seen. The hedge was bright with blossoms and

was wonderfully attractive. I have never seen it so good inland, but round the South Coast there used to be large bushes of it, and it is a charming wall plant. Under similar conditions the Laurustinus is seen at its best in winter, and then it makes a delightful hedge. A hedge of white and purple Lilacs planted alternately makes a rather picturesque background, and Laburnums, trained to wires on each side of a walk or alley running through the garden, form rather a pleasant feature. Berberis stenophylla when permitted to grow and not too closely trimmed is one of the best hedge plants I know.

Trenching ground from 20 inches to 30 inches deep, according to conditions, is productive of immense good, even in relation to drainage. It frequently happens that just beneath the top 12 inches of soil there is a hard pan of some almost impervious material which has never been broken up. This, if of stone or rock, is best removed absolutely, but if it be of any softer material, such as can be broken well, it is best in the process of trenching to break it up thoroughly some 10 inches to 12 inches deep, and leave it lying where found before the upper porous soil is replaced. Such impervious subsoils, as thus described, in time become loose, porous, and fertile. Air sweetens and crumbles them. Applications of manure render them capable of supplying plant food. They serve also to assist crops in dry weather in finding root room and moisture; they enable heavy surface rains to pass away freely; and as air always follows the retreating moisture these once useless, worthless subsoils in time become of the most valuable description. There seems to be absolutely no description of subsoil that cannot be made in this way fertile. A most important product of deep working or trenching ground is that not only does it tend in winter to keep the soil in which crops may be growing drier than shallow soils do, but is also much warmer. In the summer, when drought so commonly prevails, their good working enables the roots of crops to go so much deeper, where the soil is at once cooler and moister, and thus continues productive much longer. Remarkable illustrations of the differences found in crops grown on deeply worked and shallow-dry soils are often seen on groups of allotments, where the soil is quite of the same nature or texture. In the first



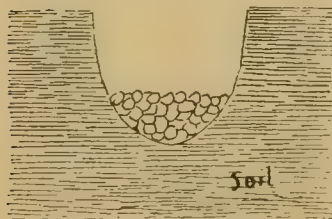
BAD CHRYSANTHEMUM CUTTING.



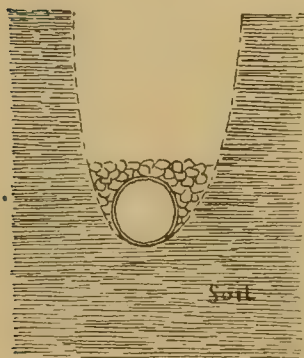
GOOD CHRYSANTHEMUM CUTTING.

should be taken off and inserted. It is astonishing how large a number of cuttings may be taken off old stools if treated in this way.—D. B. C.

Twelve Easily-grown Dwarf Japanese Exhibition Chrysanthemums.—Exhibition Chrysanthemums in no case exceeding 4 feet in height and in each instance easily grown have a special value for beginners, and those, too, with only dwarf glass structures in which to house the plants in the flowering season. Such plants are also useful for grouping. The varieties in the subjoined list are useful for either purpose: Miss Olive Miller, a beautiful soft pink flower; Lady Hopetoun, a large and refined mauve-pink flower; Mrs. C. Beckett, pure white flower, useful also as a bush plant; Merstham Yellow, a beautiful yellow colour, it comes good from any bud selection; Mrs. W. Duckham, deep yellow, margined with red; George Penford, a striking flower with long, curling, and drooping florets, intense crimson-scarlet; Elith Smith, creamy white, and slightly earlier than most midseason sorts; Alfriston, rich maroon-red, with golden reverse to the florets; J. R. Upton, still one of the very best clear yellow flowers; W. R. Church, a distinct Japanese incurved flower, rosy crimson, with deep bronze reverse; Marquis V. Vengsta, a large flower, reddish



SHALLOW RUBBLE DRAIN.



DEEP OR PIPE DRAIN.

case the crops are robust and luxuriant; in the latter they are poor, soon ceasing to be productive.

How to Trench.—The process of trenching is simple; it should be invariably performed during the winter months, on plots that are for the time uncropped, and have not been deeply worked previously or for several years. In good class gardens the work is done about every third year, but if done in gardens where labour is less abundant it is carried out once in from four to five years. The first effort of the cultivator in trenching where soils have not been so previously treated, is to do it in such a way that the lower or subsoil be not brought to the surface. This is described as half or bastard trenching. Were the lower sour soils brought to the surface at once crops would fail or growth be very poor in consequence. For that reason the cultivator not only leaves these subsoils where found for some time, but as they become sweet and fertile gradually mixes or incorporates them with the upper good soil, so that in time the entire worked depth is sweet and productive. After several years of such treatment trenching may take a complete form, the lower soil being brought to the surface, and the top soil buried low down, but being in its turn brought up again some three years later.

In Half Trenching a plot of ground, if broad, the operator must start by dividing it into two equal portions, running a mark down the centre to form a division, then throwing out at one end of one of the halves the whole of the top soil down to a depth of 12 inches and a width of 24 inches upon the adjoining soil. With a strong

2 feet of soil and of that width. The bottom should then be deeply forked up and the whole of the soil from the next trench of same width and depth cast into it. That process naturally brings the lower soil to the surface, but it may be practised with the best results when the whole body of soil has become thoroughly sweetened.

Watering Plants in Rooms in Winter.—We are sometimes told in books to water certain plants sparingly. What is meant by the term? The average person might think that only small quantities should be given, and if this dribble system of watering is persisted in there will surely be trouble in the future. If any plants require water at all enough should be given to moisten all the soil, and then leave it till it is dry again. I am often brought into contact with ladies who kill their plants on this dribble system of watering. No plant at this season requires water till the roots are approaching the dry state, and then all the soil should be moistened.—H.

Gooseberry Warrington.—This is one of the most valuable red small-fruited Gooseberries grown. The bush is of compact growth, the fruit is bright red, may be left to hang late, and has a rich and brisk flavour. It is an excellent sort to grow upon a shaded wall, one facing north, for instance, for a late supply of Gooseberries, which are favourite dessert fruits with some. Warrington is also known as Aston Red.

GARDENING OF THE WEEK.

FLOWER GARDEN.

DECEIDUOUS SHRUBS which from any cause were left unpruned at the proper season, namely, just after the flowering period, should now be attended to. The majority bloom on wood of the previous year's growth, hence the pruning consists chiefly in thinning out tangled, weakly, and unripe wood and shortening back soft and sappy growth, retaining only firm and well-ripened shoots. Only these will flower satisfactorily in their season. This thinning out even now will be beneficial by admitting the maximum of light and air among the branches, which will conduce to free floral display later. Those flowering on the current year's growth should, of course, be hard—even spur—pruned. Use a sharp knife in preference to a secateur for this work.

HYDRANGÆA HORTENSIS VARS.—Old flowering shoots should be cut back to a strong eye now. Thin out weakly shoots in the spring after severe weather is over, but *H. paniculata* should not be cut down until the spring, and the same applies to those subjects annually cut down with a view to producing large foliage or improving the colours. *Ailanthus*, *Paulownia*, &c., are examples of the former, and Golden Elders of the latter. These are much improved by this treatment, followed by liberal feeding.

RHODODENDRONS—hybrids of arboreum—in mild districts are on the point of opening their buds, so it is well to have scrim canvas, tiffany, or some light protective material ready to place over them whenever frost threatens. If not prolonged and very severe, these temporary protections often save the flowers, which at this dull season are most effective and exceedingly useful, well repaying a little extra attention.

LAWNS of verdant green free from coarse grasses, weeds, and moss, and in perfect order are of the greatest importance in all places. Unfortunately, in many cases they are in a bad state, so that drastic measures must be adopted to bring them into a satisfactory state by another summer, and now is a suitable time to apply most of such measures. Where lawns are moss-grown it is often ascribed to defective drainage. This is certainly the case in some instances, but the great majority are undoubtedly the result of poverty of the soil. Remedy the former by examining all the existing drainage, and see that neither main nor subsidiary drains are choked nor defective or damaged in any way, and that the fall to outlet is so gradual as to clear surplus surface water quickly. Where insufficient or no drainage at all is provided, and the nature of the land requires it, cut fresh drains as necessity demands. Stagnant water must be cleared. Poverty-stricken lawns, if large, should have chain or bush harrows run over them in every direction. This will uproot the greater part of the moss, as well as scarifying the surface, rendering it more open to receive the top-dressing it is ultimately decided to give it. Smaller plots can be raked with iron rakes to answer the same purpose. The moss thus loosened and cleared away, coarse weeds should next be hunted for, either grubbing or spudding them up. Next fork up all rough grasses, level any irregularities by lifting the turf and rolling it back carefully, filling up depressions and levelling

down any mounds, then relaying the turf, and all is ready for top-dressing. I consider light clean soil and wood-ashes preferable to rich farmyard manure, as being more encouraging to the growth of the finer grasses and not producing such rank herbage. The strength of the dressing can be supplemented by the addition of bone-meal, basic slag, superphosphate of lime, and such like mild and slow-acting additions, according to the degree of poverty in the soil, but lawn sands, special lawn manures, and strong, quick-acting mixtures are better applied early in the spring. Where turf is past renovating and not easily replaced, sowing must be adverted to, but deferred until next spring. In the meantime, and where freedom of action exists—such as the absence of the family from residence during the winter—preparation of the ground may with great advantage be proceeded with without delay, trenching or digging and levelling it, and a fine seed-bed will result. J. ROBERTS.

The Gardens, Tan-y-bwlch, North Wales

INDOOR GARDEN.

CHRYSANTHEMUMS.—Preparations must now be made for putting in cuttings. Before taking them have everything ready. Use a compost of three parts loam, one part leaf-mould, adding plenty of sand. A small frame or handlight in a house having a night temperature of 45° to 50° Fahr., with the usual rise by day, will be found convenient for rooting them in. Insert three or four cuttings in a 34-inch pot, or one cutting in 24-inch size. Cover the surface of the soil with sand so that a little will work in with each cutting. Select cuttings or suckers about 3 inches in length from round the base of the stem. Avoid stem cuttings, as they are apt to run to flower. When inserted water the cuttings in with a fine Rose. Open the frame every morning for an hour to let out any excess of moisture and wipe the glass.

FORCING PLANTS.—After the Chrysanthemums are over there is usually a dull period in the greenhouse and conservatory, especially of tall plants. Plants for forcing started now will brighten the houses considerably. The following will be found useful: *Prunus triloba*, *P. sinensis* fl.-pl., *P. sinensis* var. *atropurpurea* (Eisardii), *P. Pseudo-cerasus*, *Pyrus floribunda*, *Lilacs*, *Spiræa Van Houttei*, *S. arguta*, *S. prunifolia* fl.-pl. *Rhododendron præcox*, *R. indicum* vars., including *ameaunum*, *R. noblesanum*, *R. sinense* (*Azalea mollis*), *Deutzia gracilis*, and *Choisya ternata*. Much better results are obtained by placing the plants in a warm house and gradually increasing the temperature than subjecting them to too much heat at the beginning. There is no better house for them than an early viney or Peach house just being started. Sprinkle with tepid water several times daily, especially on bright days. *Dicentra* (*Dielstra*) *spectabilis*, *Astilbes* (*Spiræa*), and *Polygonatum officinale* (Solomon's Seal) can also be started in the same or a similar house.

CANTERBURY BELLS and WALLFLOWERS.—Well-grown plants of these are very useful in cold and cool houses in spring. They come into flower three weeks or a month in advance of those outside. Lift the plants now from the open ground with a good ball and pot up into a convenient size—Wallflowers into 5-inch and 6-inch pots; Canterbury Bells into 6-inch and 7-inch. Stand them in a cold frame, well soak with water, and keep the frame close for a few days.

MIGNONETTE.—During winter great care is necessary to grow Mignonette successfully. Only sufficient heat must be maintained to keep it growing, 45° Fahr. at night, with a rise of 5° by day will be ample. The plants from early-sown seeds are ready for tying out after stopping. Put on into 6-inch pots when well rooted; this size pot will be large enough for single plants.

BOUVARDIAS are almost over, and should be placed in a cool frame. Keep rather dry at the root till the end of January.

SOLANUM CAPSICASTRUM (Winter Cherry).—This is one of the most useful and seasonable plants for Christmas decoration. Grow them in a cool house, as too much heat is apt to cause the berries to shrivel.

HIPPEASTRUMS (*Amaryllis*)—Look over these and pick out any pushing up the flower spike. See that the drainage is in good order. Top-dress with a compost of fibrous loam and cow-manure, or a sprinkling of a good artificial manure.

CLERODENDRON FALLAX.—Cut a few plants back, and start them in a house with a warm moist atmosphere. *Royal Botanic Gardens, Kew.* A. OSBORN.

FRUIT GARDEN.

PRUNING PEAR TREES.—The pruning of fruit trees should be persevered in whenever conditions are favourable. After Cherries, Apricots, and Plums are finished, Pear trees may receive attention. Horizontal and fan-trained trees, which are covering their allotted space, will only require the young wood which was shortened at the summer pruning to be cut back to two or three buds. Should any trees be in an unsatisfactory condition through the spurs becoming congested with useless growth, judiciously trim out so that sunshine and air can do the necessary work of ripening and maturing the fruiting spurs. At the same time root lifting and pruning must be attended to, or the result will be a repetition of the trees again making useless growth instead of forming fruit buds. It is essential that trees growing in a restricted space should be root-pruned whenever they show signs of over luxuriance. This, together with a little care and thought at pruning time, will keep the trees in a fertile condition.

CORDON TREES.—This way of growing Pears is becoming popular, and deservedly so. The trees are more under control. They come into fruit more quickly than horizontal or bush trees, and walls or trellises can be covered



THE WARRINGTON GOOSEBERRY.

fork thoroughly break up the bottom soil fully 12 inches deep and leave it there. It is an admirable plan when manure is at hand to cast in upon this broken bottom a liberal dressing and rework that into the soil. Then from the next width of 2 feet throw out to the first trench the whole top soil, 12 inches deep, and the first trench is filled and complete. Keep on repeating this trenching process until the entire half of the plot is done. Then open a trench of the same width and depth at that end of the other half, using the soil taken out to fill up the end trench of the first half, and that portion is completed. Then the process has to be repeated with the second half until that also is done.

Trenching is laborious work, but always pays well for its performance, therefore great care should always be taken that the whole of the soil be worked deep and equally. If the surface soil, after trenching, needs a manure dressing get it on with a barrow, putting down planks on which to wheel. Then spread the manure and well fork it in, and the plot will be in first-rate condition for cropping in the spring.

In Complete Trenching it is needful to throw out from the first trench the entire depth of

in the least possible time. Trees in strong soil will require to be root-pruned at least every alternate year, using plenty of old mortar rubble when filling in the soil. Pruning and training are very simple, and consist chiefly in pinching or shortening the growths during the summer months, so that now there will be little to do except to cut back any young wood which was made after the last summer pruning. Established trees which are showing signs of exhaustion will benefit greatly by mulching with decayed farmyard manure.

PYRAMIDS AND BUSHES.—The pruning of these will be much the same as advised above, each branch being treated as a single cordon. The wood, which was shortened in the summer, should be cut back to two or three buds. Should the branches have become too thickly covered with spurs thin out the weakly and very strong wood.

GENERAL WORK.—The prunings of trees should not be allowed to remain on the ground for an indefinite period, but be raked off and carried to the fire heap without delay, as insects may be present. Mosses and lichens may be easily cleaned from trees after a period of wet weather. Trees affected with American blight should be dealt with now. Remove all loose pieces of bark, moss, and lichen from the affected parts. Then thoroughly scrub the stems with a stiff brush, using a strong solution of soft soap and lime water. It is essential that young trees which are affected with this pest should be cleaned, as it may in a very short time do irreparable injury. E. HARRISS.

Fruit Department, Royal Gardens, Windsor.

ORCHIDS.

IN THE CATTLEYA HOUSE plants of *Cattleya Warnerii*, *Lelia crispata*, *L. purpurata*, *L. boothiana* (C. lobata), *L. cinnabarina*, *L. Cowanii*, also many rare *Cattleya* and *Lelia-Cattleya* hybrids that are in various stages of active growth, should be placed where they may obtain all the light possible, and water should be afforded only in moderate quantities until growth is completed. Then, as the plants finish their growths, the compost should be kept somewhat drier, by which means, with the aid of sunlight and air, the new pseudo-bulbs will become properly matured. Some of these plants when the new growths are made up produce clusters of young roots from their base, and should then be examined to ascertain if they require more root room. *Cattleya bowringiana*, *C. hardyana*, *C. aurea*, *C. Mantinii*, *C. Mrs. J. W. Whiteley*, and *C. Maronii*, which have recently passed their flowering stage, may also be repotted now. After repotting keep the plants well exposed to the light, and water them sparingly. The object should be to induce root activity, and to prevent, as far as practicable, the plants from starting into premature growth.

THE MEXICAN *ODONTOGLOSSUM CITRISUM* has by this time completed its growth. To obtain good flowering results this species requires a long decided rest, so that as each plant makes up its new pseudo-bulbs the quantity of water should be gradually diminished, and in a few weeks be quite discontinued. Keep the plants in a cool, dry atmosphere until the flower-spikes make their appearance through the centre of the young growths. *O. Reichenheimii* and *O. have* have also finished their growth, and require but little root moisture during the winter. Both varieties may be rested with *O. citrisum*. The various species of *Chysis* and their hybrids, which have completed their growth in the warmest house, also require a long period of rest to induce them to bloom satisfactorily. From the present time till the leaves turn yellow and fall off a gradually diminished quantity of water at the root is necessary, and when the new pseudo-bulbs have lost their leaves the plants should be suspended in the lightest part of the *Cattleya* house. Afford no water unless shrivelling of the bulbs is feared.

Such species as *Cyrtopodium*, *Catasetum*, *Cynoches*, *Mormodes*, *Lisochilus*, *Eulopis*, *Thunias*, and the deciduous *Calanthes* should be kept comparatively dry while at rest, and if properly matured will keep fresh and plump for a long time without receiving any water. *Aerides*, *Saccolabium*, *Angreum*, *Staurospira*, *Renanthera*, *Sarcanthus*, *Sarcophilus*, and the tall-growing *Vandas* do not require resting so decidedly as the deciduous species; still, the longer they can be kept in an inactive state the stronger will be the new growth and the surer are they to flower. These evergreen species should not be allowed to get quite dry. Whenever the compost or the sphagnum moss on the surface assumes a whitish green colour it should be carefully sprayed over. The *Cyrtopodiums* require but little rest, and this should be immediately after the plants have done flowering, affording water sparingly for a few weeks, when the majority of them will recommence to grow.

IN THE COOL HOUSE most of the *Odontoglossums* are in full growth, and they should be kept fairly moist at the root. When the plants commence to form their new pseudo-bulbs the amount of water should be considerably increased until the plants are in bloom; after then the supply should be gradually lessened. The same remarks are also applicable to the cool-growing *Oncidiums*, &c. As regards plants that are suspended to the roof in the cool house, it is safer to sprinkle the surface of the compost occasionally than to dip them in the ordinary way.

Burford Gardens, Dorking.

W. H. WHITE.

KITCHEN GARDEN.

FRENCH BEANS.—The maintenance of as constant a supply as possible of choice vegetables towards the middle or end of March, when there is generally a lull in the vegetable supply, is naturally to be desired, especially after severe weather. As a rule, Broccoli make slow progress during the first three months of the year, unless the weather is very open and genial. It is not before the days

lengthen somewhat and the sun becomes more powerful that growth begins, so that if a good sowing of French Beans is now made, disappointment may be averted. The climbing French Bean is by far the best variety to grow for productiveness, but by the month of March those sown last will be getting past, and the roots they now occupy may be required for Cucumbers or Melons. In that case a sowing in 9-inch pots will help to maintain the supply. French Beans sown at this date require plenty of drainage, and the soil used for growing them must be of a light, open nature. Soil retained from an old Melon bed mixed with leaf-soil—equal parts of each—answers the purpose very well, the pots being filled to within 2 inches of the top. This leaves ample space for top-dressing later on when the plants are in full growth, and then some fresh loam with a little artificial manure may be used. The Beans now sown may be started into growth in any convenient forcing-house, where some bottom-heat can be obtained. As soon as the young plants are fairly through the soil they must be so placed that they will obtain all available light in addition to plenty of heat. Until they have a considerable amount of foliage very little water will be necessary. That supplied by the syringe, which must be freely used, will sustain the plants for some time. Use water that is a few degrees higher than the temperature of the house. For culture in frames or pots, I find none to beat Sutton's Dwarf Forcing, which is prolific and rich in flavour, two very necessary recommendations.

PREPARATION OF GROUND FOR POTATOES.—Some attention must now be given to the plot of ground where Potatoes are to be grown next year. Potatoes, like other subjects, require special treatment, at least if they are to be mealy and well flavoured. The idea has gained ground lately that good flavoured Potatoes can only be grown on the farm. No doubt the manager of that department having more ground at command is always able to plant the Potato crop on fresh soil, or at least on ground that has not been occupied with Potatoes for some considerable time, and that accounts for a good deal. Even in the garden, however, with its more limited space, since adopting the following plan and using two manures only, leaf-soil and lime, the Potato crops have invariably been mealy and well flavoured. The present is the time when leaf-soil should be applied to a plot of ground where early Broccoli have just been cleared off. Our plot here was heavily manured and deeply dug last year. This year it is being turned over one spade deep and a good quantity of leaf-soil buried in it. The leaf-soil being used at present was collected twelve months ago, and a fresh heap is now being formed for another season. The ground is turned over roughly for the winter. After the seed is set the lime is applied on the surface.

CLIMBING BEANS that were sown early last September are now yielding good supplies, and require some attention in the way of top-dressing with some well-decomposed leaf-soil, with which should be mixed a sprinkling of artificial manure. J. JEFFREY.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, W.C. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

Legal Points.—We are prepared to answer questions of law which have anything to do with the subject of gardening and forestry. The questions should be as clear and explicit as possible, so that there can be no doubt as to the point of the question. Answers will be found in a separate column headed "Legal Points."

FLOWER GARDEN.

LYCHNIS VISCARIA and **L. CELI-ROSA** (A. E. Speer).—These are two distinct plants, and as the nomenclature is somewhat involved it follows that different writers take different views, hence the confusion that arises. The correct names and synonyms are as follow: *L. Celi-rosa* (Rose of Heaven). Annual, from the Levant. Also known as *Agrostemma Celi-rosa* and *Viscaria oculata*. *L. Viscaria* (German Catchfly). Perennial, found in various parts of Europe. *L. Lagasæ* is a small half-hardy perennial from Spain, only suitable for warm sheltered corners in the rock

garden. The name *Viscaria* has been used as a generic one, and embraced a few members which are now included in the genus *Lychnis*, although some prefer still to retain the name of *Viscaria*, as in the case of *V. oculata*. The "Kew Hand List" of herbaceous plants gives all the correct names and synonyms in general use. The varieties splendens mentioned in both cases are merely selected garden forms.

STORING GLADIOLI (Cambs).—This matter should be done with care and in the proper manner, for upon the way in which the bulbs or corms are lifted will depend, in some manner, next year's flowering. It is wise to take them up by the end of October, even if the foliage is then green. They should then be hung up in a shed until the soil and leaves can be cleared off. When the leaves have withered, cut them off, lay out the bulbs separately for another week or two, and when they are dry place them in paper bags. They will then keep perfectly until the spring in any place that is frost proof. Detach the small bulbs and next year plant these separately. You may increase your stock of Gladioli by preserving these small bulbs, for in due course they will make flowering bulbs.

CHRYSANTHEMUMS FAILING (Enquirer).—It is difficult to assign a reason for your plants in some instances failing to develop their buds satisfactorily. The members of the Viviani Morel family are especially given to failing in the manner seen in the shoots sent to us. On this account it may therefore be said that the plants of this group have an inherent weakness in this respect. We believe the constitution of the parent and some of the earlier sports was impaired through working the stock plants too hard, and they have never regained their former vigour. When the parent variety was first introduced it was in every respect satisfactory; but being such a distinct advance upon anything of its kind at that time every grower wanted it, and the plants were forced into growth to provide the necessary cuttings, hence the failure to perpetuate healthy stock.

PLANTS FOR WALLS (E. L. R.).—With your mild climate you can safely attempt several plants not usually cultivated on north and east walls in Scotland. Among deciduous and evergreen climbers you might try on the north wall any of the *Euonymuses*, *Akebia quinata*, practically all the hardy Vines, such as *Vitis Coignetiae*, *V. Thunbergii*, and *V. inconstans* (*Ampelopsis Veitchii*) being among the best for your purpose. *Aristolochia Sipho* (the Dutchman's Pipe), is well adapted for the higher parts of the wall. *Bridgesia spicata* should also do well. *Cotoneasters*, *Cydonias*, *Forsythia suspensa*, *Ivies*, *Jasminum nudiflorum*, *Lycium barbarum*, *Menispermum canadense*, *Muehlenbeckia complexa*, and *Pyracantha Lelandi* will do quite well. For your east wall, which is a low one, you should have *Elæagnus Simonii* tricolor, some of the *Cydonias*, *Azara microphylla*, and the double *Brambles*.

Regular Reader.—We think it quite possible to rear the Iris you describe from seeds in a dry garden, but growth will always be stunted, and ten years may elapse before the plants reach flowering size and strength grown under such conditions. The wild Iris is not worth the trouble of rearing from seeds under conditions totally at variance with its requirements. If you can water the plants frequently they are likely to thrive. Sow the seeds in the open now, cover with an inch of soil, and they will germinate in the spring. Growth thenceforward will depend upon the supply of water afforded.

Fred Walker.—The best way to use lime for the purpose of getting rid of the worms in your lawn, and lime is undoubtedly the best thing to use, is by applying water strongly impregnated with newly-burned lime. This may be prepared by filling the barrel with water and then adding as much lime as the water will absorb. Stir well, and afterwards allow the lime to settle. The lime water is best applied by means of an ordinary watering-can with a rose on the spout to spread the water uniformly. It will make the worms emerge in large numbers from their burrows. This application has the additional advantage of being advantageous to the grass. Collect the worms and destroy them by putting into a vessel containing salt water.

TREES AND SHRUBS.

OAKS (J. B. B.).—You can get a good deal of variety in foliage simply by planting a small collection of Oaks, and we should strongly advise you to do this. The autumn effect of some sorts, when the richly coloured leaves are at their best, is very fine. *Quercus coccinea*, whose leaves become vivid crimson and scarlet during September and October, is one of the best for autumn colour. The Red Oak (*Quercus rubra*) is another that can be recommended for the same purpose. *Quercus conferta* and *Q. castanæfolia* are two other Oaks with handsome leafage. *Quercus cerris variegata* (a silver-leaved Turkey Oak) and *Q. pedunculata concordia* (Golden Oak) should also be planted. *Q. pedunculata atro-purpurea*, *Q. ficifolia*, and *Q. laurifolia* are other good ones.

BIRDS AND SHRUB BUDS (A. H. W. D.).—We are, indeed, alarmed to learn from you that birds, probably greenfinches, have taken to the eating of flower-buds of *Forsythia*, *Exochorda*, *Prunus Pissardi*, and other shrubs. They have in the past done harm enough with fruit trees and bushes, but if flowering shrubs are to be similar sufferers the outlook is, indeed, gloomy. Once birds taste these buds, they seem never to forget them. Bird protectors, or humanitarians, will have to realise the fact that unless these pests are rigidly kept down they will, in time, render gardening impossible. So far as the protection of fruit trees and bushes is concerned, although solutions of soft soap, paraffin, quassia chips, soot and lime dustings, and other nauseous applications have been used freely, still they rarely keep the birds at bay. The chief protection has been found in wire or fish netting, and in many gardens it is only possible to obtain fruit by so protecting trees and bushes. We fear you must not claim a monopoly of audacious sparrows. We find them terribly voracious near London.

D. Vawdrey.—The soil best suited for Lilacs in tubs is good loam, with which a little well-decayed cow manure has been incorporated, and if the loam is of a very heavy nature, use some rough sand. The plants will not need annual repotting, but during the growing season they will be greatly benefited by an occasional dose of liquid manure. All suckers should be removed, and as soon as the flowers are over any pruning that is necessary may be carried out. In doing this all weak and exhausted shoots should be removed, and the strong ones shortened back if they imperil the symmetrical character of the specimen.

Beech Fungus.—We do not quite know what you mean by "white fungus." There are numerous fungi that attack the Beech. We suspect you mean the white insect that attacks the bark of the Beech. It is known as *Cryptococcus fagi*, and is a very bad pest. If this is your trouble the only way is to wash the bark with a stiff brush, using paraffin emulsion or a similar insecticide. See the Journal of the Royal Horticultural Society for 1904, p. 595. There is an interesting account of this pest, and an ingenious suggestion made that the insects might be destroyed by passing a painter's blow lamp rapidly over the surface. *Pinus Strobus* is supposed to be a source of infection; if you have any in the neighbourhood of the Beeches, examine them, and, if infected, clear them away.

ROSE GARDEN.

DWARF TEAS (T. J. Carter).—Among dwarf Tea Roses you should certainly include the following in your list: Anna Olivier, G. Nabonnand, Mme. Hoste, Mme. Lambard, Souv. de S. A. Prince, Sulphurea, Hon. E. Gifford, Dr. Grill, Mme. P. Perny, Mme. Cochet, and Mme. Antoine Mari. It is important to remember that many of the Tea Roses are tender, and therefore the bases of the plants should be earthed up—that is, covered with soil, to protect from hard weather.

PRUNING PILLAR ROSES (A. K. Wyborn).—Pillar Roses should always be cut back hard the first year, say, to within 6 inches of the base. If you particularly wish to have a few flowers next year, and the plants are strong, you may leave one shoot almost its full length and cut it out as soon as the flowers are over; but the proper thing to do is to cut back hard all the shoots, leaving them varying lengths, according to their strength, but none longer than, say, 18 inches. The growths that will be made the next

summer must then be left their full length (or perhaps shortened very little); flowers will be produced throughout the shoot. When the flowers are over cut out the shoots that have borne them, so that the young growths to flower the following season may have more room. As the pillars develop old worn-out growths should be cut out and the healthy one, two, or three year old shoots should be retained, and not all these if they are crowded. When you thin out always cut out the oldest growths. The lateral shoots that break out from the main shoots should be cut back to three or four buds.

HEDGE ROSES (E. K. F.).—You might form a hedge of Roses with any of the following: If you want a high hedge you should plant *Penzance Briars*, *Conrad F. Meyer*, *Flora*, *Sweet Briar*, *Félicité Perpetué*, or *Mme. Berard*. Roses suitable for forming a smaller hedge are *Blanc double de Courbet*, *Gaius an Teplitz*, *Fellenberg*, *Common China*, *Armosa*, *Dawson Rose*, and *Mme. Plantier*.

THE GREENHOUSE.

WINTER-FLOWERING BEGONIAS (Mercia).—You should grow *Gloire de Lorraine*, *Turnford Hall*, *Mrs. John Heal*, *Ideala*, *Winter Cheer*, and *Ensign*. Of *Hollies* plant *Wilsoni*, *Silver Queen*, and *Golden Queen*. Suitable *Thorns* are the *Cockspur Thorn* (*Cratægus Crus-Galli*), *C. pinnatifida*, and *C. Aronia*. We have not mentioned *C. Pyracantha* (*Evergreen Fire Thorn*), which you should have for training against a wall. Of *Maples* use *Acer Negundo variegatum*, *A. palmatum aureum*, and *A. pictum rubrum*, sometimes called *A. colchicum rubrum*. *Laburnum* or *Lilac* or *Pyrus floribunda* we should plant in place of the *Mountain Ash*, for you have berried shrubs in the *Cratægus*. As you cannot plant before January you had better wait until the end of March, and until May before planting the *Hollies*. However, you had better give your order now.

PLUMBAGO CULTURE (Plumbago).—The best way to propagate this plant is by means of cuttings, which will root readily in the spring if placed in pots filled with sandy soil in a house of the temperature of about 60°. When the cuttings are inserted in the pots (you may place five or six in a pot of 5 inch diameter) cover them with a hand light; this makes them root more quickly. When the cuttings are well rooted, put each one singly in a pot of 3 inch diameter. Keep the house rather close for a week or so until they have rooted into the fresh soil. Afterwards give plenty of air, for if this is not done the plants will not flower freely. If you can do so, you should subsequently plant them out in a border, for they usually succeed better this way than if grown in pots. During the summer, when in full growth, they require a good deal of water. In the winter they need considerably less. Really the *Plumbago* is as easily grown as the *Fuchsia*, and requires much the same treatment.

KEEPING BULBS IN DARK (E. L.).—The rule as to keeping bulbs in the dark till they have made roots applies only to *Hyacinths* in glasses, for, of course, when a bulb is potted it is covered with the soil, and is, consequently, in the dark. *Hyacinths*, *Tulips*, &c., intended for early forcing, are, as a rule, when potted, placed out of doors and covered with *Cocconut* refuse or ashes, but the object of this covering is to keep the soil in an even condition as far as moisture and temperature are concerned, as this favours the development of the roots, and the pots are removed from this covering as soon as the shoots commence to push through the soil. In the case of *Ixias*, *Sparaxis*, early *Gladioli*, &c., they should certainly not be plunged over the rim, as if this is done it will cause the stems to be weak at the base. With plenty of air when possible they make good sturdy growth in a frame without being plunged. We have *Roman Hyacinths* coming into flower which were potted early in September, and just placed on a greenhouse stage. Such small bulbs as those concerning which you

enquire should be potted at such a depth that the upper part is about an inch below the surface of the soil.

Fox.—Your *Begonias* are attacked by yellow thrips, which are so small and do so much damage before the leaves are developed that their presence is very frequently not suspected. While the leaves are enfolded together in a very young state they make innumerable punctures in the outer skin, and as the leaves grow these injuries enlarge, and the leaves then present the appearance of those sent. Vaporising with the *XL All Vaporiser* is a certain cure, but when very bad, as your plants are, it should be done three or four times at intervals of a week. As with the common black thrips, they make rapid headway if too dry an atmosphere is maintained.

Enquirer.—The best time to put the *Plumbago* into the tub will be during the first half of March, as the roots will then be in an active state, and soon take possession of the new soil. From now onwards the plant should be kept in a quiet state, that is to say, it must not be over-watered, but at the same time an excess of drought will be equally injurious. Throughout the winter the soil should at all times be kept slightly moist. As you intend your specimen to grow up the wall of the greenhouse, the pruning should be limited to cutting out any old shoots. One important matter to bear in mind is that once in the tub it will be inconvenient to disturb it at the roots, on which account the soil used should be of a good lasting nature. Like many subjects whose leaves are thin in texture, this *Plumbago* is somewhat liable to be attacked by red spider, particularly if the atmosphere is dry, but these pests can be kept down by a liberal use of the syringe.

FRUIT GARDEN.

ROOT PRUNING (F. E. S.).—Yes, you may safely root prune large bush Apple trees that have been growing twenty years, but you must not cripple or mutilate too severely. You should do the work at once. You must with trees of that age keep, say, quite 3 feet to 4 feet from the stem of the tree. Open out a trench at that distance—a good workable trench 2 feet wide, and go down as deep as you find strong roots; cut these clean as the work proceeds. Also under the tree cut large descending roots, fill in with good soil, not manure, make firm under the trees and in the trench, saving as the work proceeds all young or fibrous roots. Be sure and make the soil firm with a rammer, and if you have any old potting soil, burnt refuse, road scrapings, old lime or mortar rubble, this worked in the soil near the cut roots will encourage new root action. With younger trees you could lift entirely.

APPLE SCAB (E. G. B.).—There is no better time than the present to get rid of scab or other pests on fruit trees, and in your case scab is very bad on the young shoots. We should have thought that the mixture you had applied would have removed the scab, though we are rather in the dark how you could apply boiling water, as doubtless that would in a measure weaken the petroleum. It would have been best to have applied it in a tepid state, and a double quantity of petroleum, all being kept well mixed. There is now a splendid winter dressing that so far has never failed, and that is Bentley's Concentrated Alkali. This is a preparation by Bentley's, Barrow-on-Humber, Hull, and is supplied in small tins, a powder in a dry state. One tin will make 10 gallons of the dressing, and at about the same cost, or a trifle more than petroleum. This can only be used as a winter wash when the trees are in a dormant state. It is the most effective for destruction of all pests. Another good and old remedy is Gishurst Compound. This dissolved in tepid water will remove scab quickly, and it may be procured from any seedsman at a small cost.

Figs.—The Fig will grow out of doors as a bush in some parts of the British Isles, notably near the coast at Worthing, in Sussex, there are orchards of immense Fig trees. It may be grown on a warm wall in many other more northern counties. Black *Ischia*, Brunswick, Brown Turkey, White *Marseilles*, and *Madeline* are good sorts for outside culture.

C. J. K.—Autumn-fruiting Raspberries require different treatment from the summer-fruiting sorts. The fruit is borne upon the current year's growth, and not upon canes made during the previous year. The proper way is to cut down the canes in February to within a few inches of the ground, and shoots will then push from them vigorously. The canes need plenty of light and air, and therefore must

not be so close together as the summer-fruited ones. Belle de Fontenay, large, red; Noir d'Automne, large, very dark; October Red, bright red; and October Yellow, medium sized, yellow, are good autumn-fruited sorts.

MISCELLANEOUS.

HOT-WATER BOILERS (C.).—It would be too great a responsibility on our part to recommend you any specific boiler. In addition to those you name it would not be difficult to mention a dozen others, all good, for, indeed, modern boilers now are so constructed that whatever the shape or style, whether saddle, vertical, tubular, or how else formed, all alike are excellent, and if properly set do their work well. After all so much depends on the setting, and the best boiler in the world badly set may prove a failure. Proper attention or stoking is another very important feature in boiler using. Your best course would be to make a selection of, say, three makers, and ascertain from them the cost of boiler, properly set by maker, to heat 1,000 feet of 4-inch pipe, and sufficiently powerful to maintain a temperature of not less than from 50° to 60° in the severest weather, as it is then boilers and piping are fully tested. Do not have for economy's sake a boiler too small to maintain the needful heat in severe weather.

WINDOW-BOX (J. G. M.).—We think you would do far better to buy a window-box than to attempt to make one yourself—or, at any rate, to have one made for you—if you cannot get one to fit your window. The person who fitted it for you would, no doubt, suggest some method of diverting the surplus water so that it would not stain the house. So far as we can see, the only way of avoiding this would be to carry off the surplus water in a small pipe. The best soil for the window-box would be turfy loam, mixing a little leaf-soil and some sand with it. If you use ordinary garden soil, composed of very fine particles, it has a tendency soon to get sour, especially in a hot window like yours, where it would need a good deal of watering. During the winter months you should plant shrubs in your window-box; take these out in the spring, and then fill with flowering plants, or, if you prefer it, you could plant bulbs now, taking them up after flowering in the spring. Suitable shrubs for the purpose would be Aucuba, gold and silver-leaved Box, Skimmia, Euonymus or Laurustinus. The Ivy-leaved Geraniums are very suitable plants for window-boxes; trained over the edge they are very beautiful. Marguerites, Geraniums, Carnations, Spanish Irises, and Fuchsias are all good flowering plants for the purpose. When the summer flowers are over you could pull them up and plant some of the many beautiful early-flowering Chrysanthemums.

NAMES OF PLANTS.—*Ada*.—The plant you sent for name is *Eria bicolor*, a native of Ceylon, and one of a somewhat large genus of epiphytal Orchids found in India and the Malay Archipelago. They require a warm temperature and should be grown in Orchid baskets, potted in a mixture of fibrous peat, sphagnum moss, and a little charcoal. If baskets are not available pots may be used with plenty of holes made in the sides and bottom to ensure perfect drainage. Water should be supplied freely during the period of growth, and the plants kept free from insects by sponging the leaves occasionally. After growth is completed, gradually reduce the supply of water to assist ripening the bulbs, and when the plants are at rest keep the roots rather dry.

SOCIETIES.

ROYAL HORTICULTURAL SOCIETY. FLORAL COMMITTEE.—DECEMBER 5.

PRESENT: Mr. W. Marshall (chairman), Messrs. H. B. May, George Nicholson, James Walker, John Green, G. Reuthe, Charles E. Shea, C. J. Salter, Charles Jeffries, W. Bain, Charles Dixon, H. J. Cutbush, George Gordon, Charles E. Pearson, William Cuthbertson, W. P. Thomson, E. H. Jenkins, J. F. McLeod, J. Jennings, C. Bick, R. Hooper Pearson, C. T. Drury, and C. R. Fielder.

The winter-flowering Carnation exhibit from Messrs. William Cutbush and Sons, Highgate, was a great attraction. We noted such important varieties as Lord Charles Beresford (a white ground fancy variety of a good type and fragrant), General Kuroki (crimson-scarlet), Enchantress, Mrs. S. J. Brooks, Glacier, and Nelson Fisher (cerise-crimson). Many other kinds were included, and plants in bud gave a good idea of their value. Silver Flora medal.

From Lady Wantage, Lockinge, Wantage, Berks (gardener, Mr. Eyfe), was shown an exhibit of *Ipomoea rubro-crenula*. A most striking *Convolvulus*-like flower of deep azure blue, flowering in winter. Vases of single Chrysanthemums came from the same source.

Messrs. J. Vetch and Sons, Limited, Chelsea, again showed groups of the winter Begonias, *Jacobinia coccinea* (Brazil) and *J. chrysostephana*, rich gold and orange, from Mexico, which are showy and good for winter work. Silver Flora medal.

Mr. S. Mortimer, Farnham, Surrey, had a admirable lot of winter Carnations. The blossoms were arranged in tall glass vases with Asparagus Sprengeri trails, the latter producing an effect very light and elegant. Silver Banksian medal.

Messrs. John Peed and Son, West Norwood, had a large and varied exhibit of alpine in pots and pans, many of which are interesting at all seasons of the year. Bronze Flora medal.

Mr. H. B. May, Edmonton, filled a table with the Begonias of the Gloire de Lorraine type; Turnford Hall, white; Mrs. Leopold de Rothschild, large pink; rosea

crispata; Mont Blanc, the large white sport from Turnford Hall; Masterpiece, rose; and Marie, a free flowering variety with large blossoms of pale pink. Other plants were also shown, and contributed to a most interesting table of winter-flowering subjects. Silver Banksian medal.

A grand exhibit of winter-flowering Carnations came from Leopold de Rothschild, Esq., Ascott, Leighton Buzzard (gardener, Mr. John Jennings). The plants were shown as grown in pots, and the group was of an instructive nature and decidedly attractive. Large blocks of such as Enchantress, pink; Harry Fenn, crimson; Purity, L. Grandesse, and Governor Lowndes, white-flowered varieties; America, scarlet; Flamingo, intense crimson-scarlet; Margins, a deep pink shade; Mrs. Lawson; and Mrs. Leopold de Rothschild were finely shown. A gold medal was deservedly awarded this fine exhibit.

Mr. E. H. Brown, Highwood, Roehampton (gardener, Mr. R. Bradford), showed an entire table of Begonia Gloire



SILVER CHALLENGE CUP.

(Offered by Messrs. James Carter and Co., High Holborn, and Mr. A. Findlay, Auchtermuchty, Fife, N.B., at the recent show of the National Potato Society, for the best exhibit of twelve distinct varieties of Potatoes from a selected list.)

de Lorraine and its white-flowered variety Turnford Hall. Silver-gilt Flora medal.

Messrs. W. Wells and Co., Merstham, had a very good exhibit of Chrysanthemums representative of all sections. Bronze Flora medal.

Messrs. T. S. Ware, Limited, Feltham, had an interesting display of Tree Carnations, Chrysanthemums, and Primula obconica, together with a varied assortment of alpine and rock plants in pans and pots. In this lot *Gentiana acaulis* was noted in flower, also *Lithospermum rosmarinifolium*, a flower coloured a deep intense blue. Silver Banksian medal.

Messrs. Hugh Low and Co., Enfield, had a pretty exhibit of Tree Carnations in pots, in which were seen many of the best known American varieties. In the cut flowers in vases we noted Liberty, rich scarlet, and Aurora, a lovely yellow-ground fancy, of excellent quality. Hybrid Tea Roses and Cyclamens in pans were also good, Low's Salmon being especially fine.

NEW PLANT.

Chrysanthemum Triomphe de Montbrun (incurved).—A well-built and shapely flower, colour tawny buff and yellow. From Messrs. William Wells and Co., Merstham, Surrey. Award of merit.

CARDIFF GARDENERS' ASSOCIATION.

ABOUT forty members paid their annual visit to the Central Free Library, Cardiff (through the kindness of Mr. John

Bullinger, chief librarian), on Tuesday evening, the 14th ult. The party was received by Alderman E. Thomas, J.P. (chairman of the Free Libraries Committee), and Councillor Veal (chairman of the Central Free Library Committee). These two gentlemen gave an address of welcome, and in their remarks said how helpful it was to them when they knew how many were appreciating the result of their efforts in trying to obtain the best possible books on horticulture, suitable to those who were carrying on that particular work in and around the city of Cardiff. As citizens they asked for suggestions to be made to the committee; should the members find that there were books which they thought would prove useful and not already in the collection in the library, they would do their best to secure them. In conclusion they hoped the members would spend a pleasant evening. After spending some considerable time glancing through many of the most important works the time came all too soon to retire. The best thanks of the meeting were accorded Alderman E. Thomas, Councillor Veal, Mr. John Bullinger, and his deputy, Mr. Farr, for what they had done in granting permission to visit the library, also for the great amount of trouble they had gone to in placing the books upon the tables. Two new members were elected, and the proceedings closed.

MANCHESTER CHRYSANTHEMUM SHOW.

THIS important fixture was held in the Royal Botanical Gardens, Old Trafford, on the 16th, 17th, and 18th ult. The large annexe, as usual, was furnished with Chrysanthemums grown in the gardens.

For nine large flowering and six Japanese Chrysanthemums, Mr. J. Smith, gardener to James Brown, Esq., was an easy first in each class with large plants.

For six Pompons the same exhibitor was first with fair types of pyramidal plants.

For forty-eight cut blooms, twenty-four incurved and twenty-four Japanese, distinct, Mr. W. Higgs, gardener to J. B. Hankey, Esq., added another honour to his long list by securing the Manchester Challenge Cup, the gift of the Earl of Derby. Mr. Higgs's incurved flowers were the best in the show. Second, Pantia Ralli, Esq.; third, Mr. J. Stoney, gardener to F. H. Gossage, Esq.

For twenty-four incurved blooms, Mr. R. Nisbet, gardener to W. A. H. Bass, Esq., was first. Mr. W. Higgs was first for twelve incurved. For thirty-six Japanese Mr. Hall, gardener to Lady Ashburton, won first prize. Mr. R. Nisbet won for eighteen Japanese, and Mr. Hall for twelve.

NON-COMPETITIVE EXHIBITS.

A gold medal was awarded to Messrs. Waterer and Sons for shrubs; silver-gilt medal to Messrs. Dickson and Robinson for Borecoles, Potatoes, &c.; silver medals to Messrs. Dickson, Brown, and Tait for Begonias, &c.; and to Messrs. F. Dicks and Co. An award of merit was granted to Mr. J. Robson for Carnations, Palms, &c.; to Messrs. Caldwell and Sons for Palms, Cyclamen, &c. Mr. P. Weathers, the curator, was responsible for the arrangements.

BOLTON CHRYSANTHEMUM SHOW.

THIS exhibition was held in the Albert Hall on the 17th and 18th ult., and fully maintained its reputation as the most beautiful show in the neighbourhood. Mr. R. Smith, chairman of committee, is to be congratulated on the satisfactory manner in which the various exhibits were placed before visitors. No less than seven cups were offered, and rather unfortunately for the society five of them were won outright at this show.

For a group of miscellaneous plants a silver cup was won by Mr. W. Burgess, gardener to J. Harwood, Esq.

Group of Chrysanthemums.—The silver cup was won by Mr. H. Drinkwater, gardener to Herbert J. Farke, Esq.

Mr. J. Abbot (gardener to Jas. Musgrave, Esq.) won a silver cup for another group of plants.

The silver challenge cup offered for six large flowering Chrysanthemums was won by Mr. W. Burgess. One of the specimens won the gold medal for the best plant in the show.

For a semi-circular group of Chrysanthemum plants a silver cup was won by Mr. Henry Windle.

CUT BLOOMS.

For twenty-four blooms, Mr. W. Higgs (gardener to J. B. Hankey, Esq.) again took first prize with a grand lot of blooms.

For thirty-six Japanese, Mr. F. S. Vallis was well first with a magnificent stand.

For six vases of large flowering sorts Mr. Vallis was again first.

For six vases of single blooms, Mr. J. Horrocks (gardener to Mrs. Tillotson) was first.

The President's silver challenge cup for twelve incurved and twelve Japanese was won by Mr. J. Wainwright (gardener to E. Cook, Esq.).

FRUIT AND VEGETABLES.

The gold medal for two bunches of Black Alicante Grapes was secured by Mr. J. Barker (gardener to J. W. Ryne, Esq.). For two bunches of white Grapes, Mr. J. Wright (gardener to Edward Lord, Esq.) was first. Mr. J. Abbot won for two bunches of black, thus gaining the silver-gilt medal of the Royal Horticultural Society.

For eight kinds of vegetables Mr. J. MacMillan was first.

A large number of local classes were provided, in which excellent exhibits were staged both by gardeners and amateurs.

The following were staged not for competition: Carnations by Messrs. W. Cutbush and Son; Chrysanthemums by Messrs. Norman Davis and W. Wells and Co. Mr. Herbert Making was most successful in his secretarial duties.

NATIONAL ROSE SOCIETY.

The annual meeting of the National Rose Society was held at the Hotel Windsor on Thursday, the 7th inst., the president, Mr. C. E. Shea, being in the chair. There was a record attendance of members, the following, among others, being present: The Revs. J. H. Pemberton, F. Page Roberts, Hugh A. Berners, G. E. Jeans, R. Powley, J. B. Shackleton, Dr. Masters, Dr. Shackleton, Dr. Williams, and Messrs. Edward Mawley (hon. secretary), H. E. Molyneux (hon. treasurer), E. B. Lindsell, Conway Jones, Alfred Tate, George Paul, J. T. Strange, Frank Cant, O. G. Oren, H. G. Mount, W. F. Cooling, G. A. Hammond, R. Harkness, C. Page, C. C. Williamson, L. S. Pawle, R. Foley Hobbs, W. D. Prior, A. Prince, E. J. Holland, Courtenay Page, T. E. Gabriel, E. T. Cook, E. A. Bunyard, H. P. Landon, G. Gordon, B. H. Lang'ou, B. E. Cant, C. E. Cant, Arthur Turner, George Mount, and G. W. Cook.

After the circular calling the meeting and the minutes of the last general meeting had been read, Messrs. Conway Jones and Burch were appointed scrutineers of the ballot. The following report of the committee and financial statement for 1905 was then read:

REPORT FOR 1905.

The committee, in presenting their report for the past year, congratulate the members upon the continued prosperity of the society. The metropolitan exhibition took place on July 6, by the kind permission of the president and council of the Royal Botanic Society, in their gardens at Regent's Park. Considering that the show was held there for the first time the attendance was remarkably good, and altogether the exhibition must be regarded as having been a great success. The show was rendered memorable by the private visit paid to it shortly after the opening by the society's patroness, Her Majesty the Queen. In this connexion may be mentioned the kind offices rendered by Miss Willmott, V.M.H., a vice-patroness of the society.

In the arrangements for the show the committee were ably supported by Mr. Bryant Sowerby (secretary of the Royal Botanic Society), Mr. T. W. Scargill (assistant secretary), and Mr. E. F. Hawes (superintendent of the gardens).

The provincial show was held at Gloucester on July 18, and like the metropolitan exhibition, was, owing to the season, not quite as extensive as usual. The thanks of the committee are due to the Mayor of Gloucester, Mr. Conway Jones, and Mr. Sidney S. Starr. The autumn exhibition took place in the hall of the Royal Horticultural Society in Vincent Square, Westminster, on September 26 and 27. It was in all respects a great advance on the previous autumn show. In view of the unprecedented fact that Mr. E. B. Lindsell has, in the course of the last sixteen years out of fifteen exhibits, won the Amateur Champion Challenge Trophy fourteen times, it has been decided by the committee that the trophy in question shall be handed to him to retain in perpetuity. The committee have accepted the offer of Mr. Lindsell to replace by a suitable cup the Amateur Challenge Trophy of the society.

In May last Mr. Charles B. Haywood, to the regret of the committee, found himself reluctantly compelled to resign the treasurer's office, a position which he had so ably filled since 1900. Under somewhat unusual circumstances, as it was in the middle of the financial year, Mr. Herbert E. Molyneux was unanimously elected to the vacant post.

Although issued solely for the benefit of the members and their friends, and only obtainable through a member, the demand for the "Handbook on Pruning Roses" has already far exceeded that for any previous publication of the society.

Encouraged by the success of this handbook, a sub-committee has been appointed to draw up a new official catalogue of Roses. It has also been decided to bring out next year an annual publication dealing with matters of passing and also of permanent interest to the members.

The committee record with the deepest regret the death of the founder of the society, the Rev. H. Honeywood Dombain, V.M.H., which took place on the 24th of October last. They have also to deplore the loss through death during the past year of Mr. R. W. Bowyer and Mr. J. Burrell, two esteemed members of the committee, and of Mr. William Paul, V.M.H., the doyen among Rose nurserymen. Already about £150 has been received or promised for the Dean Hole Memorial Fund, and a final appeal to members and others has recently been issued, which it is hoped will be generously responded to by those whose names are not already on the list of contributors to the fund.

Finance.—The receipts in gate money from the general public at the Royal Botanic Show slightly exceeded those at the Temple Gardens in the previous year. The receipts from all sources during the past year, including a balance from the previous year of £318 19s. 11d., amounted to £1,881 13s. 10d., and the expenditure to £1,510 13s. 11d., leaving a balance in the treasurer's hands of £340 19s. 11d. Of that amount it is proposed to set apart £100 for the reserve fund. The continued advance in membership is most encouraging. During the past year 422 new members have joined the society, or a greater number than in any previous year, bringing up the total number of members to 1,637.

Arrangements for 1906.—Members will no doubt be pleased to learn that arrangements have again been made to hold the metropolitan exhibition in the Royal Botanic Gardens, Regent's Park, the day fixed for the exhibition being July 5. The northern show will be held in Edinburgh in conjunction with the Royal Caledonian Horticultural Society, on Wednesday, July 18. The autumn show will again take place in the Royal Horticultural Society's new hall in Vincent Square, Westminster, on September 19, when the whole of the hall, by the kindness of the

president and council of that society, will be for the first time placed at the disposal of the committee.

In proposing the adoption of the report the chairman, Mr. C. E. Shea, first referred to the death of the founder and first secretary of their society, and said that his memory would always be held in affectionate regard by members. Next year they hoped to submit a plan for a worthy memorial to Mr. Dombain. The membership of the society was largely increasing, 422 members had joined in 1905. Mr. Shea said that the pruning-book published by the society had proved most valuable to a large number of members, and many purchasers who were not members had since joined the society. The sales of this book had brought in more than £60. The committee had decided to publish a Year Book that should be as terse, precise, and up to date as possible. Year by year the new Roses would be dealt with. It was proposed that the Year Book should carry the official catalogue up to date. The practical experience of members about new Roses will be in the Year Book. Mr. Shea referred to the great success of the show in the Botanic Gardens, when more money was taken at the gates than when the show was held in the Temple Gardens. Their new treasurer, Mr. H. E. Molyneux, had introduced an ideal system of book-keeping, said the auditors; in fact, everything was most encouraging, and he proposed the adoption of the report with extreme pleasure.

Mr. Arthur Turner seconded the proposition, which was carried *unanimously*.

Mr. Frank Cant then moved "That the first part of Bye-law 1 be altered so as to read 'The society shall hold an exhibition annually in the metropolis not earlier than July 1 and not later than July 9. The day on which the show is held to be Tuesday.'"

This having been seconded, Mr. Cant said he would not press the resolution.

The Rev. J. H. Pemberton then proposed an amendment to the effect that the annual metropolitan show should be held not earlier than July 5.

This having been seconded and discussed was put to the meeting and defeated, only 17 voting for the amendment.

Mr. E. J. Holland moved that "The show be not held earlier than July 3 and not later than July 9, without fixing a day."

Mr. E. Mawley seconded this resolution, which, after a good deal of discussion, was carried by a large majority.

Mr. George Paul then proposed that the next metropolitan exhibition of the society be held on July 5. This was seconded and carried.

Mr. E. Mawley proposed that the autumn show be held on September 19. Carried.

All the new members proposed for election on the committee were elected.

The meeting closed with votes of thanks to the officers and committee for 1905, and to the chairman.

THE ANNUAL DINNER.

Mr. C. E. Shea presided over the annual dinner, at which the attendance was a record one. There were the usual loyal toasts, the toast of "The Chairman," which was enthusiastically received, and the toast of "The Visitors," which was proposed in happy terms by Mr. George Paul, and responded to by the Rev. Canon Horsley and Dr. Henry, who spoke of some of the wild Roses of China.

NATIONAL CHRYSANTHEMUM SOCIETY.

THE late show of this society was held on the 6th and 7th inst. at the Crystal Palace. The decorative classes contained many attractive exhibits, but the large Japanese blooms on the whole were poor. The non-competitive displays were excellent.

The first prize for a group of Chrysanthemums and other plants was won by Mr. W. Howe, gardener to Lady Tate, Park Hill, Streatham Common.

The largest cut flower class was for twenty-four blooms of Japanese, not less than eighteen varieties. Mr. G. Hunt, Ashted Park Gardens, Epom, was first; Mr. W. Mease, gardener to A. Tate, Esq., Downside, Leatherhead, a good second; third, Mr. Simon, gardener to W. W. Mann, Esq., Bexley.

There were several competitors in the class for twelve Japanese blooms, distinct, the first prize being won by Mr. H. Parr, Trent Park Gardens, New Barnet; second, Mr. G. Hunt; third, Mr. W. Seward, Hanwell.

The first prize for six Japanese blooms, distinct, was won by Mr. J. Aplin, Hasfield Court Gardens, Gloucester. He was the only exhibitor.

The class for twelve incurved blooms, not less than six varieties, was keenly contested, Mr. G. Hunt being first with very fine blooms; second, Mr. W. Mease; third, Mr. John Aplin.

Mr. George Hemming, Alexandra Park, N., won the first prize for twenty-four bunches of Chrysanthemums with a charming lot of flowers of various sections. Mr. James Lock, gardener to Sir C. Swinfen E. dy, Oatlands Lodge, Weybridge, was second; and Mr. John Aplin with incurved sorts was third.

For twelve vases of Japanese blooms, six varieties, Mr. George Hemming was awarded first prize. No other exhibitor.

Mr. C. Brown, Abbott's Langley, was first for six bunches of large-flowered single varieties with a pretty exhibit, and for six bunches of similar flowers.

The first prize for twelve Japanese blooms, distinct, was won by Mr. C. M. Collingwood, St. David's Hill, Exeter.

The first prize for six flowering Begonias was won by Mr. H. Parr, Trent Park Gardens, with well-bloomed plants of B. Gloire de Lorraine.

Miss Cole was the first prizewinner in the class for a hand basket of Chrysanthemums and other foliage, Mr. D. B. Crane, Woodview Terrace, Highgate, being a very close second.

For six vases of Japanese blooms, three in each vase, Mr. John Aplin, Hasfield Court Gardens, Gloucester, was first with good blooms.

Mr. C. Brown, Abbott's Langley, was first for six bunches of decorative or spidery varieties. Mr. Brown was also first for six bunches of small-flowered Pompons.

The vases of Chrysanthemums made an attractive display, the first prize being won by Miss Cole, Feltham, with a charmingly arranged exhibit.

Miss Cole won the first prize, also for a vase of Pompon Chrysanthemums, Mr. D. B. Crane, Highgate, being second.

Mr. H. Postell, gardener to F. S. Wigram, Esq., Elstow, Bedford, won first prize, and also an extra prize for six Japanese blooms, distinct. They were very good blooms. Mr. Postell was also first for a vase of Chrysanthemums.

Mr. W. G. Prudden Clark, York Road, Hitchin, was first for six Japanese blooms and for six bunches of any varieties.

NON-COMPETITIVE EXHIBITS.

Mr. John Fleming, gardener to Lady Pigott, Wexham Park, Slough, exhibited some finely-grown Primula obconica, and Begonias Gloire de Lorraine and Tarnford Hall. The Begonias were splendid specimens, large, and full of flower, and denoted the highest cultural skill.

Mr. H. J. Jones, Ryecroft Nursery, Lewisham, set up a splendid group of cut Chrysanthemums. The Japanese blooms were arranged in bold masses, and among suitable greenery produced a very fine effect.

Mr. Norman Davis, Framfield, Sussex, exhibited a group of very fine blooms of Japanese Chrysanthemums, attractively arranged.

Mr. G. Prickett, Floral Nurseries, St. Anne's Road, South Tottenham, exhibited an excellent lot of bunches of Chrysanthemums in numerous sorts, all good and useful for decoration and cutting. The old red Cullingfordi was among them.

Mr. Robert Forster, Nunhead Cemetery, showed a group of Chrysanthemums and other plants.

Messrs. Cannell and Sons, Swanley, Kent, exhibited Chrysanthemums, Begonia Eosign, double Primulas, and their beautiful zonal Pelargoniums.

Mr. Weekes, Welling, Kent, showed a group of market-grown Chrysanthemums.

Messrs. Hugh Low and Co., Bush Hill Park, Enfield, showed a large collection of Tree Carnations in many beautiful sorts.

Messrs. W. Wells and Co., Merstham, showed an excellent lot of Chrysanthemums in great variety.

SCOTTISH HORTICULTURAL SOCIETIES.

BROUGHTY FERRY.—The monthly meeting of the Broughty Ferry Horticultural Association was held on the evening of the 21st ult., when there was a good attendance, presided over by Mr. James Slater. The subject of the evening's paper was "A Talk About the Potato," the speaker being Mr. Alexander Duncan, gardener and florist, Carnoustie. Mr. Duncan treated his important subject in a very interesting way, for which he was congratulated and warmly thanked in the course of the discussion which followed, and in which several members took part.

HELENSBURGH.—Under the auspices of the horticultural society a successful show of Chrysanthemums and other winter-flowering plants was held in the Victoria Hall, Helensburgh, on the 23rd ult. Unlike the vast majority of such shows, there were no competitive classes, and the show consisted of honorary exhibits sent by local gardeners and nurserymen. The display on the platform, which was much admired, was from Messrs. Thomas Barrie and Son, Rocklea Nurseries, who had good cut blooms, Chrysanthemum plants, bouquets, and other florists' work. Mr. G. M. Campbell, Claverton Nurseries, had American and other Tree Carnations, Chrysanthemums, &c. A splendid exhibit was also sent by Messrs. D. Robertson and Co., consisting of flowers and fruit. Many gardeners in the district also exhibited.

DUNDEE.—The annual show of the Dundee Chrysanthemum Society was held in the Kinross Hall, Dundee, on the 24th and 25th ult. The show was opened by Lord Provost Longair. The exhibition of flowers and plants ranked as probably the best yet held by the society in its fifteen years of existence. The leading class in the section for cut blooms was for twelve vases of Japanese. A gold medal is given by Mrs. Armitstead with the first prize. The medal fell to Mr. James Beale, gardener to Mr. Beale, Binrock. In the classes for eight, six, four, and six vases Mr. James Beale, a notable exhibitor, was first. The other first prize-winners in the cut bloom Chrysanthemum classes were: Mr. J. Dorrard (Findyate), Mr. A. Johnstone (Ramornie), Mr. D. K. Meston, Mr. J. Beale, Mr. G. Scott, and Mr. W. Dickson. Mr. James Beale was first for a group of Chrysanthemums and other plants. Fruit and vegetables were not numerous, but the quality was of a high order of merit. Mr. W. Kennedy was first for Grapes, Mr. W. Goodall for kitchen Apples, Mr. J. Fairweather for table Apples, and Mr. G. Scott for Pears. Mr. J. Kinneir had the best collection of vegetables. The amateurs' classes were exceedingly good on the whole. The non-competitive exhibits were not numerous, but very good. Mr. D. Nicoll, Rossie, displayed a number of magnificent blooms; Messrs. D. and W. Croll showed Chrysanthemums, &c.; Messrs. James Simpson and Sons, Roses and other flowers; Messrs. W. P. Laird and Sinclair sent table decorations; and Messrs. Thynne and Paton Chrysanthemums and floral decorations.

ROYAL HORTICULTURAL SOCIETY OF PERTHSHIRE.—The annual meeting was held in the lecture hall of the Natural History Museum, Perth, on the 25th ult., Mr. H. Coates in the chair. A highly satisfactory report was submitted by Mr. A. Brown, the secretary, the leading features of the report referring to the centenary show of the society held during the past year. It had been highly successful

from all points of view, and the financial results were satisfactory. The income for the year, including a balance of £18 11s. 5d., had amounted to £258 10s. 1d., and the expenditure to £238 8s. 9d., leaving a balance in hand of £23 1s. 4d. The report was adopted and office-bearers for the year elected.

DUMFRIESHIRE AND GALLOWAY HORTICULTURAL SOCIETY.—Messrs. James Service and Sons, nurserymen, Maxwelltown, Dumfries, have presented a handsome silver cup to be competed for at the next show of this society. It is of neat design, and was much admired when shown at the Chrysanthemum show of the society last month.

DUNFERMLINE.—On the 25th and 26th ult. a highly satisfactory Chrysanthemum show was held in St. Margaret's Hall, Dunfermline, under the management of the horticultural society and the auspices of the Carnegie Dunfermline Trust. The competition in several classes was of the keenest character, and the expert judges secured had some difficulty in apportioning several of the awards. Mr. John Reid had the best pot plant in the show, and Mr. James Watson the best bloom. The entries in all numbered about 400.

ALTRINCHAM AND BOWDON AUTUMN SHOW. THE tenth annual show was held in the Drill Hall, Hale, on the 10th and 11th ult. Mr. A. Calderbank, gardener to W. J. Crossley, Esq., secured the premier award for cut blooms, winning outright a silver cup. This class was for twelve incurved and twelve Japanese, and was won with good blooms. The same exhibitor was first for twelve incurved, twelve Japanese, and six seedling Chrysanthemums raised by the exhibitor. The leading awards for groups went to Mr. T. Johnson, gardener to E. J. Sidebottom, Esq. For black Grapes, Mr. W. B. Bomley, gardener to Sir F. Forbes Adam, was the winner with good bunches, and for the white variety Mr. E. Ashworth secured the first prize. Mr. W. Hazlehurst efficiently carried out his secretarial duties.

BATH GARDENERS' DEBATING SOCIETY. THERE was a capital attendance of members at the Forester's Hall on Monday evening, the 27th ult., when a highly successful meeting in connexion with the above society was held. Dr. Wilson Paton occupied the chair. In presenting the challenge vase and other special prizes to the winning competitors at the recent Chrysanthemum show held by the society, Mr. Foxcroft spoke with pleasure of the steady expansion of the society, and predicted a very great amount of success in the future. Mr. Parrott said that the total receipts were £109 13s. 8d., and after paying the necessary expenses there remained a deficit of £7 0s. 2d. This, however, should not be looked upon as an actual loss, as they had to face several expenses which would not recur next year, such as the purchase of the cup. Mr. Parrott acknowledged the receipt of various subscriptions, and added that he did not think there would be any necessity of calling upon the guarantor. They intended to hold another show next year about the same time. Mr. W. J. Stokes of Trowbridge then gave a very interesting paper on "Hardy Herbaceous Plants." There was again a fine display of exhibits, noteworthy among them being some fine Poinsettias exhibited by Mr. A. Parker, also a splendid collection of vegetables by Mr. H. Sparey. Six new members were elected. Votes of thanks to Dr. Wilson Paton, Mr. C. T. Foxcroft, and Mr. W. J. Stokes concluded an interesting evening.

DARLINGTON CHRYSANTHEMUM SHOW. THE autumn show of the Darlington Horticultural Society was held in the Central Hall, Darlington, on the 24th ult. The exhibits generally were quite up to the standard of former years, whilst in the opinion of the judges the cut blooms were finer than any seen at the local shows this season. Competition for the silver bowl was very keen; the display of the winner, Sir Jonathan Backhouse, being greatly admired. There was less fruit shown this year than last, but it was a very commendable collection. The fruit exhibited by nurserymen was said to be better than any ever seen in Darlington. The florally-decorated tables, numbering five in all, were shown in another room, and they reflected considerable credit on the exhibitors. One of the features of the show was the children's classes, special prizes having been offered by a number of local gentlemen. As usual, the local nurserymen had excellent stands, and their exhibits attracted much attention. Messrs. Kent and Brydon, the King's seedsmen, had a magnificent collection of fruit. Messrs. Mack and Miln, the seedsmen and nurserymen of Darlington, had also a very fine display.

CROYDON AND DISTRICT GARDENERS' SOCIETY. THE paper read before the members of this society, at their rooms, Sunflower Temperance Hotel, on Tuesday last was one on "Auriculas," and the early history of these plants down to the present-day culture was well interpreted by Mr. F. N. Price, Beckenham, S.E., who is a lover of this somewhat ancient flower. Although it is not the popular flower it was in its earlier days, yet from the enthusiast it claims due regard to its improved fine form since its early introduction. There are two groups of them, the show and alpine, and now that our spring or alpine gardens are so much to the fore, these are not complete without a good selection. His calendar of operations he commenced in April, and month by month for a year he traced the mode of culture to be adopted. After the usual discussion by the members, a very hearty vote of thanks was conveyed to Mr. Price for the admirable way in which he had treated the subject. Other appreciable adjuncts to the evening were the exhibits from Messrs.

Mills, Bunyard, and Whippa; also from the Public Libraries a collection of books relative to horticulture was sent.

NORTH FERRIBY (YORKS) GARDENERS' SOCIETY.

THE members of this society met on Wednesday, the 22nd ult., in the Oddfellows' Hall, Mr. W. Burton presiding. The discussion was on "Diseases and Insect Pests which attack Vegetables." The subject proved very interesting and was discussed at great length. Plants and vegetables were staged. On Wednesday, the 29th ult., Mr. F. Reid presided over a good attendance to hear a paper on "Peaches and Nectarines," by Mr. E. Wright, The Gardens, Thwaite House, Cottingham. The compost found by him to be most suitable was as follows: To every two cartloads of loam add one of lime rubble, 1½ cwt. of half-inch bones, a good sprinkling of charcoal, and a little soot. Do not mix vegetable manure with the soil, as it produces too sappy growth. Newly-planted trees should not be forced, but allowed to grow naturally the first season. The shoots should be trained 8 inches apart. Trees inside should be pruned as soon as the leaves have fallen. Bud-dropping is caused by insufficient moisture at the roots and overcrowding. Stone-splitting, the lecturer said, was due to overfeeding. He advised trees subject to it to be partly lifted and replanted. He found Giahurst Compound, used according to the directions, the best thing for cleaning trees and houses in winter time. A good discussion was raised by Messrs. Akester, Burton, Lauder, Jennings, Bellwood, Shearsmith, Reid, and Brand. Mr. Wright was heartily thanked for his practical and interesting paper.

BRISTOL AND DISTRICT GARDENERS' ASSOCIATION.

THIS society held its usual meeting on the 30th ult., and there was a good attendance to hear Mr. I. House deliver a lecture on "A Trip to New Zealand." This proved a very interesting subject. Mr. House gave many interesting bits of information concerning the customs of the people, as also varieties of trees to be found in these islands, and the flora of New Zealand. A hearty vote of thanks concluded a really enjoyable evening. Prizes for a lady's spray and gentleman's buttonholes for under gardeners were awarded: First, Mr. Carey; second, Mr. Edmonds; third, Mr. Coombs. Messrs. Garaway staged their new Potato Glory of the West, which promises well, also sprays of their new Hybrid Schizanthus. They were awarded a special certificate of merit for their exhibit.

THE HORTICULTURAL CLUB.

"BIRD LIFE IN FIELD AND GARDEN."

AFTER the usual monthly dinner of this club, held on Tuesday, the 5th inst., at the Hotel Windsor, Mr. Harry Veitch occupying the chair, and a good attendance of members and guests being present, Mr. Robert H. Read, M.B.O.U., gave a most interesting lecture on the above subject. Prefacing his lecture with a sketch of scientific progress in this special branch from the dark days of Gerard and his Burnacle Goose Tree, numerous lantern slides were then exhibited, showing mainly the nests and eggs of many species of birds, native and migrant, from photographs taken *in situ*, and the wonderful definition and excellence of these were greatly admired. The extent of the field of research open to ornithologists and oologists may be feebly grasped by the fact that some 13,000 species of birds are known, and Mr. Read was of opinion that those who contend for the splitting up and multiplication of species on minor grounds of variation, would treble this number at least. Of these we have in Great Britain about 130 resident species, i.e., constantly with us summer and winter, while about fifty-five more come to us from the North as winter migrants, returning in the spring, and about the same number are summer migrants like the swallow, visiting us in the spring and disappearing in the autumn. In addition to these representatives several other species are rare or accidental visitors. The vexed question of migration was discussed, and was partly imputed to inherited instincts dating from the glacial epoch and leading to a progressively increasing extent of migration and return as varying climatal conditions widened the localities where food could be obtained in different seasons, but Mr. C. E. Pearson, himself an experienced student of both the named sciences, thought that it was also partially due to the fact that cool conditions were more favourable to the young birds than very warm ones.

Many of the photographs taken by the lecturer demonstrated the marvellous resemblance of eggs to their environment, especially such as were laid by the ring plover, oyster catcher, and various terns on rocky and shingly deposits, their markings and even shape so exactly mimicking the water-worn pebbles around them that even within the limited area of the photograph they were difficult to distinguish. A cluster of beautifully-netted eggs lying in a bed of Staghorn Moss or Lichen equally baffled the eye, and in every case such or other provisions for concealment, either of the nest or the eggs, were shown to be existent. The curious faculty of the cuckoo depositing eggs which exactly matched in all but size the very diverse eggs of the various foster parents constituted a great ornithological puzzle, but Mr. Drury suggested that as the cuckoo's eggs were always laid subsequently to those of the host birds, the cuckoo had a power of selection, and knowing presumably by instinct the character of the eggs it laid, would choose a clutch to match them. This being so it is only necessary to assume that sub-varieties of the cuckoo lay eggs of varied tints and choose different species of birds as hosts. The alternative theory that any cuckoo could modify its own eggs to fit different clutches is obviously untenable.

In connexion with the cuckoo an interesting fact was adduced, forming a guide to those who unwillingly destroy insectivorous birds, i.e., friends to the farmer and horticulturist. The cuckoo is insectivorous, and hence of necessity chooses insectivorous birds as foster parents for its young, a fact which forms the guide in question. In the subsequent discussion Mr. Pearson, Mr. Simpson, Mr. Bunyard, and Mr. Drury took part. A very hearty vote of thanks concluded the meeting.

HORTICULTURAL EXHIBITS AT THE SMITHFIELD SHOW.

NUMEROUS firms of nurserymen and seedsmen exhibited at the Smithfield show held last week in the Agricultural Hall, Islington. Messrs. Sutton and Sons, Reading, had a large display of roots, Potatoes, and other firm and garden produce; Messrs. Webb and Sons, Worsley, Stourbridge, showed roots and seeds in large quantities; Messrs. J. Carter and Co., High Holborn, exhibited roots, seeds, and vegetables, each being well represented; Messrs. Dickson, Chester; R. Smith and Son, Worcester; Toogood and Sons, Southampton; Harrison and Sons, Leicester; Garton, Warrington; J. H. King, Reading and Coggeshall; E. W. King, Coggeshall; W. Horne and Sons, Cliffe, Rochester; and W. and J. Brown, Stamford, were other firms who had noteworthy exhibits of various produce. Exhibitors of Potatoes were numerous, among them being Messrs. T. A. Scarlett, Edinburgh; A. Findlay, Markinch, N.B.; Fidler and Sons, Reading; W. D. Davis and Sons, Kirtou, Lincs.; R. W. Green, Wisbech; and S. M. Thompson, Edinburgh.

LEGAL POINTS.

IMPORTING FOREIGN DOGS (Mrs S. Dover).— A dog brought to Great Britain from any other country, except Ireland, the Channel Islands, and the Isle of Man, must not be landed in Great Britain unless its landing is authorised by a license of the Board of Agriculture previously obtained. An imported dog must, for a period of six calendar months after its landing, be detained and isolated at the expense of its owner upon premises in the occupation or under the control of a veterinary surgeon, which shall have been previously approved in writing by the board. An imported dog is also subject to certain other restrictions. Persons intending to import dogs should communicate with the Board of Agriculture, 4, Whitehall Place, London, before doing so.

DEEDS OF ARRANGEMENT WITH CREDITORS (C. J., Bristol).— A deed of arrangement must be registered at the Law Courts, Strand, London, under the Deeds of Arrangement Act, 1887, within seven days after the date when it is first executed, except in the case of a deed executed elsewhere than in England, which must be registered within seven days after it is received here in the ordinary course of post, but the time may in special cases be extended by a judge in chambers. When registration is effected the deed must be accompanied by an affidavit in a specified form setting forth a number of details as to creditors, &c. The register may be inspected on payment of 1s., and a copy of any deed obtained on payment of 6d. for every seventy-two words. In many cases a deed of arrangement will be found more beneficial for the creditors than a bankruptcy, realisation outside the Bankruptcy Court being often cheaper and speedier. When an assignment is executed and registered the property which it comprises cannot be seized in execution, but if the debtor is made a bankrupt within three months the trustee in bankruptcy will become entitled to the property. If the deed provides that only those creditors who assent to it shall be entitled to the benefit of its provisions, a creditor who does not assent will be excluded from all participation in the property which it comprises. Moral: If your debtor executes an assignment for the benefit of his creditors, either assent or see that he is made a bankrupt within the three months.

GARDENING APPOINTMENT.

MR. M. ALLWOOD, late of Messrs. P. Ladds, Myatt's Hexlet Horticultural Company, Messrs. H. B. May, and Messrs. C. Libran, Altrincham, has been appointed Carnation specialist to Messrs. High Low and Co., Bush Hill Park Nurseries, Enfield.

* * * The Yearly Subscription to THE GARDEN is: Inland, 6s. 6d.; Foreign, 8s. 9d.

THE GARDEN.

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THE MEDLAR.

ALTHOUGH the Medlar (*Mespilus germanica*) is rarely mentioned by practical writers upon edible fruits, and notes upon its culture rarely appear in calendars, it is well worthy of extended cultivation, if not for its fruit, which many appreciate, certainly for its beautiful flowers in the spring, the fantastic rusticity of its elbowed stems and branches, and the rich colouring of its foliage in the autumn. Some years ago, when planting groups of conifers, struck by the rich orange and crimson tints of the Medlar, it occurred to us that a few standards of the Dutch and Nottingham Medlars dropped in near the margins would prove ornamental as well as useful during the spring and autumn months. In this we have not been disappointed, as the soil, a heavy calcareous loam, favourable to the *Pyrus* family, grows them to perfection.

Solitary trees of the Nottingham Medlar are often met with in old gardens, and richly they deserve better care than generally falls to their lot, for whether we admire them most for the abundance of edible fruit which they produce, or their rough-barked, almost right-angled branches, which no power can coax into orthodox fruit-tree fashion, they stand out conspicuously amongst all other fruit trees, and form pleasing objects where fitting companions like the Quince and the Mulberry are appreciated. But for picturesque beauty, although its fruit is not so good for the table, the broad-leaved Dutch certainly bears the palm, and, independently of its fruit, will well repay the planter for telling effect. The tree is perfectly hardy, and is by no means particular as to soil, provided it is neither too dry nor charged with stagnant moisture; but the soil, as we have previously observed, which suits it best is a rich strong loam resting on a well-drained subsoil. We also have trees growing on a rocky ridge by the side of a long carriage drive, and although they do not attain very large dimensions, they make very handsome objects backed by large Yew trees, and create more enquiry from passers-by than any other trees in the neighbourhood.

All the varieties can be obtained at a very reasonable price from the nurseries, and as every man is supposed to be an adept at his

own trade, the amateur or private grower who has not suitable stocks and scions to his hand will save time and trouble and avoid disappointment by patronising the trade, as well-formed trees can be purchased ready for planting. When the Nottingham Medlar is grown expressly for its fruits, standard training is not absolutely necessary, although this is the best mode of making handsome trees. It can also be worked low on the Quince, pinched and pruned into pyramids like Pears, as it is not quite so obtuse in its growth as the broad-leaved Dutch. When well grown the fruit measures 1 inch to 1½ inches in diameter, and is fit for gathering about the end of October or early in November. A dry day when the foliage is quite ripe should be devoted to gathering, as it is important that the fruit not only parts freely from the trees, but that it is also perfectly free from moisture at the time of storing. A dry room, in which the fruit can be spread out thinly on bare shelves, will be found a suitable place for ripening. If laid on straw or any damp substance, a mouldy taste will be imparted, and a minute fungus will attack the stalk and render the fruit useless. When first gathered the fruit is hard and unfit for use, but after it has been stored for two or three weeks, it begins to decay; the colour changes, and crude acidity gives way to a slightly astringent flavour. In this state the fruit is generally eaten raw, or it can be converted into a very agreeable preserve by boiling in sugar. In addition to the two varieties we have mentioned, there is a third called the stoneless Medlar, possessing no particular merit either for planting as an ornamental tree or for use after the fruit is ripe.

THE EDITOR'S TABLE.

CYPRIPEDIUM INSIGNE.

Mr. Field sends from Ashwellthorpe Gardens, Norwich, flowers of this old favourite with the following note: "I am sending for your table flowers of this old but very useful *O.*chid, and where flowers are in demand in the winter, and especially at Christmas-time, nothing will be found more useful or more easily grown. It is one of the earliest introduced species, and one of the best for free flowering. It is not particular as to temperature, as it will grow well in a pit or ordinary greenhouse if the temperature is kept above freezing, or it will bear the heat of the East Indian house with impunity. My plants

are grown in a pit where the temperature from fire-heat never exceeds 50°. Here they are in perfect health, and flower profusely from October until the end of January. In their growing season I give the plants an abundant supply of water, and shade them from the hot rays of the sun. Lovers of flowers would find this a splendid winter-flowering plant, and its waxy flowers will last from six to eight weeks when used for decoration."

APPLE COX'S ORANGE PIPPIN.

From St. James' House, Grimsby, Mr. Arthur Mountain sends several splendid fruits of this Apple, of large size, rich colouring, and good flavour. Although they were past their best so far as flavour is concerned, we have seen few finer fruits of Cox's Orange Pippin this season, and no doubt a few weeks ago they were delicious. For Apples grown in a town garden we have never seen better. Mr. Mountain writes: "I enclose a few Cox's Orange Pippins in order that you may see what can be accomplished with care and attention by an amateur in a town garden."

A BEAUTIFUL LAPAGERIA.

We have received from Messrs. Fisher, Son, and Sibray, The Royal Nurseries, Handsworth, Sheffield, flowers of a beautiful *Lapageria* which was raised in their nurseries some years ago, and named *Maculata*. The colouring is peculiarly delicate, a warm rose with shades of a softer tint, and as the big waxy flowers hang from the graceful shoots this refined colouring is seen to advantage. *Maculata* is a variety very little known in English gardens, and flowers later than the red and white forms with which we are familiar. The *Lapageria* is very easily grown in a greenhouse if the soil is well prepared.

A BEAUTIFUL RACE OF PERSIAN CYCLAMENS.

Mr. J. T. Strange, Aldermaston, Reading, sends flowers of a beautiful form of Persian Cyclamen, which is conspicuous not only for the clear rose colouring of the flowers, but also for their sweet scent. A note will appear shortly from this enthusiastic amateur gardener on his favourite flower. We are pleased to know that so many amateurs are not only growing flowers, but successfully improving the race by acquiring by selection and hybridisation quite new forms.

FLOWERS OUT OF DOORS.

From Forde Abbey Gardens, Chard, Mr. J. Crook writes: "I am sending you a few winter flowers from the open garden. As you gave a coloured plate recently of Wallflowers, I thought you might like to see a bunch of these sweet flowers and Lothian Stocks, showing what may be had from the open garden these dull December days. *Primula obconica* is from a cold house. I also enclose fruits of Winter Nelis Pear, which I consider the best flavoured winter Pear, and should be grown by all who prefer small, richly-flavoured fruits rather than large, showy, worthless kinds."

A very welcome lot of flowers from the open garden, and remarkable at this time of year.

The flowers of *Primula obconica* were of a deep rich colour. The fruits of Winter Nelis Pear were delicious.—ED.

MIGNONETTE CARTER'S PERFECTION.

Mr. Beckett, The Gardens, Elstree, sends flowers of this remarkable variety with the following note: "We have grown the above variety here rather largely during the past twelve months, and have been much pleased with it. It is perfectly distinct from any other variety I am acquainted with, but one of the chief points in its favour is its adaptability for winter flowering. We have now a large batch just at its best which promises a wealth of blossom for the next two months. It is a vigorous grower, producing stout spikes of sweetly-scented flowers of a particularly bright appearance. I enclose, Mr. Editor, a few flowers for your inspection."

CLIANTHUS PUNICEUS.

Mr. S. W. Fitzherbert sends from Kingswear for the third year in succession flowers of the Glory Pea (*C. puniceus*) from an open wall. The *Clanthus* is usually grown in a greenhouse.

PRIZES FOR GARDENERS.

AWARDS IN THE NOVEMBER COMPETITION.

THE prizes for the best answers to the questions on greenhouse plants, published in THE GARDEN during November are awarded as follows: First, L. Livender, Waltham Manor Gardens, Twyford, Berks; second, H. Tomalin, Tower Hill House Gardens, Kingsclere, near Newbury, Berks; third, James Bixter, Etholme, Llanfairfechan, North Wales; fourth, C. W. Caulfield, Bridgen House, Park Crescent, Erit, Kent. Among those whose papers are commended are J. Grant, The Homestead Gardens, York; M. A. Penny, 17, York Crescent Road, Clifton, Bristol; G. Waller, Cock Crow Hill, Ditton Hill, Surbiton; H. Braithwaite, care of Mr. G. Drury, gardener, Barton-on-Stather, Doncaster; Grace Robinson, Eastergate, Chichester; Charles Adams, 14, North Road, Highgate, N.; George Norris, 3, Wycherley Street, Prescott; W. A. Smart, Crowcombe, Taunton; A. J. Morgan, The Gardens, Bicton, East Budleigh, Devon; T. Hayton, Kilhey Court Gardens, Worthington, Wigan; G. H. Taverner, The Gardens, Hurrow Weald House, Middlesex; J. Westcott, Penalverne Gardens, Penzance; Mrs. E. P. Mack, Lund Rectory, Lowestoft; James O'Keefe, Longtown Gardens, Sallins, County Kildare; W. Holder, The Gardens, Panesanger, Herts; Parker Robinson, The Pool Gardens, Adderley, Market Drayton; John Botley, Scarlets Park, Twyford; Miss B. Fairbridge, Fairfield, East Gristead; Mrs. Buck, Market Place, Settle, Yorks; and E. B. Anderson, 5, Melville Road, Elgbaston, Birmingham.

Many excellent answers were sent in, and in addition to those to which the prizes are

awarded, those sent in by the above-mentioned competitors are especially deserving of commendation.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

December 29—Lee and Blackheath Horticultural Society's meeting.

January 6—Annual Dinner of the Société Française d'Horticulture de Londres.

Our New Year's Number.—The first number of the New Year will be of exceptional interest to gardeners, both amateur and professional, and writers of great experience

flower of deep blue colouring. There will be the usual features, namely, "Gardening for Beginners" and the weekly calendars, giving seasonable advice on the various work of the garden. An almanac for 1906 will be presented with this number, on which will be recorded the dates of the chief flower shows for the ensuing year.

Show of winter-flowering Carnations.—Mr. Hayward Mathias writes from Thames Ditton, Surrey: "I have pleasure in informing you that occasion was taken to hold an informal meeting of Carnation growers at the Vincent Hall on the 5th inst., at which Messrs. Dutton, Cutbush, and others were present. It was the opinion of those present, which view was shared by those who had communicated by letter, that a society in the interests of these flowers was desirable, but as the difficulty of

reaching the various growers with a view to gaining a personal expression of opinion was great, it was decided that with the kind permission of the Royal Horticultural Society, growers should be invited to exhibit at one of the Royal Horticultural Society's meetings late in February or early in March, and that the Royal Horticultural Society should be asked to grant medals and certificates for such exhibits. The reason for this decision was that such an exhibition might reasonably be expected to bring growers together from all parts of the country, and that a meeting could be held at the show for the purpose of forming a society with a duly elected executive, and a definite programme drawn up for the furtherance of the aims of a Winter-flowering Carnation Society. As growers must of necessity be more or less unprepared for competitive classes, it was determined that no restrictions should be placed on exhibitors, except as to the amount of space occupied, and that in order to ensure support from large, medium, and small growers, three classes should be recognised, viz., those occupying 5 feet, 15 feet, and 30 feet of tabling respectively. Exhibitors may show cut blooms or pot plants, or a mixture of both, accompanied by any description of foliage or foliage plants, but flowers other than Carnations are not admissible. In order that the general public may gain an idea of the magnificent sight afforded by a large mass of Carnations, it is earnestly hoped that every

grower will do his utmost to support the show, both by exhibiting and attending personally, and thus accord to the Queen of Winter-flowering Plants the honour that is undoubtedly her due. Date and particulars of show can be had on application."

The late Mr. Henry Eckford, V.M.H.—In our last issue we referred at some length to the death of this renowned raiser and grower of Sweet Peas, but through the news having reached us while the pages were going through the press it was impossible to give a portrait. This we are now able to do. Not long ago Mr. Eckford received the Victoria Medal of Honour in Horticulture.



THE LATE HENRY ECKFORD, V.M.H.

have promised to assist us in making this issue as bright and instructive as possible. Amongst the articles will be those upon "Some Beautiful Palms," by Mr. W. Watson, curator of the Royal Gardens, Kew; "Select Vegetables for 1906," by Mr. George Wythes; "Wistarias," by Mr. W. J. Bean, assistant-curator of Kew; "The Nigellas," by Mr. W. Irving; "Lilies in 1905," by Captain Savile Reid; "Notes on Roses," by Mr. E. J. Holland, Mr. H. E. Molyneux, and Mr. Lewis S. Pawle; "Sweet-scented Persian Cyclamens," by Mr. J. T. Strange, and many others. The illustrations have been carefully chosen for their beauty and usefulness, and the coloured plate will represent the new hardy annual *Nigella* Miss Jekyll, a beautiful

Dinner of Edinburgh Seed Trade Assistants.

—The annual dinner of the Edinburgh Seed Trade Assistants was held in the rooms of Messrs. Ferguson and Forrester, Limited, Princess Street, Edinburgh, on the evening of Friday, the 1st inst. There were upwards of 100 present, and the function was one of the most successful and pleasant of any yet held by the assistants in the seed trade. The chairman was Mr. A. Scott, Denholm. The toast of the "Seed Trade Assistants" was ably proposed in a pleasant speech by Mr. H. A. Elliott, the response being made by Mr. J. C. McLaren. The other leading toast was that of the "Nursery and Seed Trade," which was in the hands of Mr. R. Watson Dod, who discharged the duty in a capital way. Mr. H. Friskine returned thanks on behalf of the trade. A number of other toasts, interspersed with songs and recitations, formed the principal portion of the evening's programme, an admirably arranged one, doing credit, as did all the other arrangements, to the committee who had charge of the dinner.

Sea Lavender—The *Statice*s form a large genus of greenhous, half-hardy, or hardy plants and shrubs. They chiefly inhabit sea-shore districts in temperate climates, being often termed *Sea Lavender*. Quite a number of them are found in the Canary Isles. Individually the flowers are not particularly showy, but the calyx and corolla are coloured, and the flowers are usually freely produced. The greenhouse perennial species are very ornamental, and nearly always in flower. Propagation is effected by seeds, cuttings, or division. The best time is in spring, though seeds may be sown almost any time. Insert the cuttings singly in small pots filled with sandy soil, and place in a close, propagating frame, or under a bell-glass. As they like plenty of water when growing freely, the pots should be well drained. Equal parts of fibrous loam, peat, and leaf-mould, with plenty of sand and a little broken charcoal, form a suitable compost. The flowers are useful for cutting and arranging with other suitable flowers. The flowers are so-called everlasting, and look very pretty when arranged in vases by themselves, or better still mixed with dried grasses. The following species will be found useful for greenhouse decoration: *Perennials* *S. arborea*, *S. brassicæfolia*, *S. imbricata*, and *S. macroptera*; *annuals*, *S. Bonduelli*, *S. sinuata*, and *S. Saworowi*.—A. O.

Trentham as a gift.—The announcement has been made that the Duke and Duchess of Sutherland have offered Trentham Hall as a gift to the County Council for the purposes of higher education in North Staffordshire. Trentham Park and gardens have for generations been accessible to the public, thanks to the generous kindness of the Dukes of Sutherland, and they form the most popular holiday resort of the people of North Staffordshire. The statement made a few months ago that the Duke contemplated giving up the hall as a residence, owing to the pollution of the Trent, was received with a general feeling of regret, so that this latest announcement of his Grace's intentions with respect to the Hall has not only called forth expressions of appreciation and gratitude, but a feeling of satisfaction that if Trentham can no longer be regarded as the seat of the family it may still be claimed as one of the most important of the public institutions of the district.

Costus igneus.—Nothing brighter under glass than the flowers of this *Costus* can be found during a dull winter's day, when the rich orange tint stands out conspicuously from their surroundings. The plant in question is a member of the Gingerwort family, and though, like many of its allies, the flowers are decidedly fleeting in character, a succession is kept up for some time from the terminal cone-like head. Grown freely this *Costus* forms a dense leafy clump about 18 inches high, all the principal shoots contributing to the floral display. The individual

blossoms are from 2 inches to 3 inches in diameter, very thin in texture, and a fiery orange in colour. This *Costus* is a native of B'bia, and was introduced from there by M. Linden in 1882. It needs stove treatment, and grown in a mixture of loam, leaf-mould, and sand it will do well. Where facilities exist the best treatment is to plant it out, always, of course, ensuring a suitable temperature. It is just now one of the most attractive plants at Kew.

Streptocarpus var. Virgil.—Without doubt Virgil is one of the best varieties of *Streptocarpus*. There are several strains of *Streptocarpus* now in cultivation; Virgil belongs to Veitch's Hybrid strain. As a rule those plants which make a deal of growth are not so free flowering. Such, however, is not the case with this variety. Since it is so strong in constitution it is better able to resist the attacks of the Begonia mite, a pest that equally deserves the name *Streptocarpus* mite. This turns the base of the leaves a brownish or rusty colour, and is very difficult to exterminate, since it is not visible to the naked eye. The flowers of the variety Virgil, which are borne both profusely and continuously, have a pure white corolla with a deep maroon throat. It seeds very freely, which is a great point in its favour, for so many of the selected varieties are shy in this respect. It is well to sow annually in January, because the plants which produce such an abundance of flowers and seed are somewhat exhausted.—H. C.

Reading and District Rose Society.—The annual meeting was held recently. Mr. J. T. Strange, of Aldermaston, presided. The annual report for 1905 stated that the committee had pleasure in presenting their third annual report. The show in June last was far in advance of the two previously held, both in the number of entries and in the quality of the exhibits, the cut blossoms being exceptionally good. The amateur and local classes were excellent, reflecting great credit on growers. Four of the six challenge cups were won outright. The committee hoped that from among their supporters four other cups might be given to replace them, to be competed for at the next show. The only thing necessary to make the exhibition a great success was fine weather, but this, unfortunately, was wanting, as rain fell continuously from the opening to the closing of the show. This fact, of course, very seriously affected the attendance, and consequently the funds of the society, so that an adverse balance of £9 14s. 4d. was the result. The balance sheet was presented, showing in detail the expenditure. Last year commenced with a balance in hand of £15.

Libonia floribunda.—This pretty little Brazilian shrub is very valuable from the fact that the bright-coloured blossoms appear during the winter months, that is if a suitable temperature is maintained, for a greenhouse from which frost is just excluded is not sufficient for it. What is known as an intermediate house, where the thermometer ranges from 50° to 60°, will just meet its requirements. This *Libonia* can be struck from cuttings of the young growing shoots in spring as readily as those of a *Fuchsia*, and if the young plants are grown on freely and stopped occasionally they will form neat little specimens full of flower-buds by autumn. The colour of the expanded blossoms—red and yellow—is one of those combinations which are very effective during a dull winter's day. Throughout the summer months red spider is apt to attack the foliage, and frequent syringing should be resorted to. As the pots get full of roots liquid manure and soot water are very helpful, this last especially, as it tends to keep the leaves a good colour, which is not always the case, for they are sometimes apt to turn yellow. Although this *Libonia* was very popular a generation ago, it is for some reason or other not so often met with now as it was then; why it is difficult to say, as there is really nothing to take its place

at this season of the year. With the continual changes in nomenclature that are now taking place this *Libonia* is, according to the latest dictum, to be called *Jacobinia pauciflora*, a poor specific name for such a good free-flowering plant.—T.

Chrysanthemum Glitter.—This variety is destined soon to become one of the most popular of all yellow sorts for market. It is a true Japanese, and the moderately large flower-heads will not, I think, hurt the susceptibilities of those who see neither merit nor beauty in those huge monstrosities seen at Chrysanthemum exhibitions. When the variety Glitter was recently exhibited before the Royal Horticultural Society, it was evident that the finely-framed blossoms were large enough for all ordinary purposes of decoration; apart from this the richness of the glistening golden petals will be sure to win golden opinions from the market men. Glitter is a variety less than 4 feet high; the straight, stiff stems are terminated by a short, stout, rigid peduncle, which is nearly hidden by the slightly drooping petals. The variety was shown by Messrs. W. Wells and Co., Redhill and Merstham, and I expect it will figure in their novelty list of 1906.—E. H. JENKINS.

Epiphyllums.—The different varieties of *Epiphyllum truncatum* form a beautiful class of winter-flowering subjects. All of them are very easily propagated by grafting on the *Pereskia*, the usual method being to put them on stems from 1 foot to 2 feet in height, as from their half-drooping nature they are seen to better advantage when partially elevated. This is the sole reason for grafting, as they strike root very readily from cuttings; indeed, good-sized pieces will root without difficulty. Though, as above stated, for pot culture they are almost invariably grafted, yet when grown in suspended baskets, under which conditions they are very effective, *Epiphyllums* are best when on their own roots. Thirty years or more ago the flowers of *Epiphyllums* were often to be met with in Covent Garden Market, being at that time worn as buttonhole flowers, while in the formal bouquets then in vogue they were from their one-sided nature frequently used to form a fringe around the lowermost portion. There are several varieties, some of the best being *delicatum*, *coccineum*, *tricolor*, and *violaceum*. Despite the number of years that these *Epiphyllums* have been grown in gardens, only three of this section have been honoured with an award by the Royal Horticultural Society, viz., *tricolor* in 1864, *violaceum* in 1869, and *Princess* (the same as *delicatum*) in 1898. A very distinct species is *E. makoyanum*, which has cinnamon red, regular-shaped flowers, and whose blossoms are borne in late spring and early summer instead of in the autumn and winter as in *E. truncatum* and its varieties.—H. P.

A Flower Exhibition.—A small but interesting collection of landscape studies by Miss Maud Schloesser is on view in New Bond Street, and the paintings of trees, blossom, and flowery borders will probably prove attractive to the lover of gardens, while the brass nail work of Miss Alice Schloesser has all the interest that decorative work always has when it has been thoughtfully designed and carried out by the same artist. As such work hardly comes within the scope of this paper we will merely single out for special notice the delightfully quaint blue birds decorating the panels of a cupboard for cigars (No. 4) and (No. 1) a wooden music-chest decorated with brass nails only, the designs in both cases being particularly good and well adapted to their purposes. Miss Maud Schloesser in her landscapes has turned her attention to purely English scenery, and some of her most successful paintings are of the country in spring time, No. 17 being, perhaps, typical of the quiet scenes that have attracted her. Here we have Primroses flowering under the trees beside a stream, and again, in No. 22 ("Oh, to be in England now that April's there!"), is a

successful study of Primroses carpeting the ground under trees. No. 10 shows some charming old cottages in Chiswick. No. 19, "Gold and Blue," is one of the best, in the brilliant colouring of which the hues of topaz and amethyst predominate, as the name suggests, while, in direct contrast, the low quiet tones of "The Clearing" (No. 10) make a strong appeal to our interest. In No. 20, "Sunset on Bookham Common," the subject has been most happily chosen, the quiet, winding road, lighted by the sunset, being most effective, and another good work is No. 23, "Wild Marjoram in the Happy Valley, Polesden." It is, perhaps, to be regretted that Miss Schloesser shows only one study of flowers alone, and that one of Madonna Lilies, this beautiful flower being, perhaps, the most difficult flower to present with distinction, the texture, allied with its snowy whiteness, baffling the efforts of the cleverest artists.

Hakea saligna.—The leaf colouring of the young growth of *Hakea saligna* is very beautiful at this time of the year, and also in spring. From a distance it appears like a gorgeous flower. It is quite hardy in Cornwall—on a well-drained bank facing south it is thriving well. —J. R.

DAFFODIL NOTES.

THE MIDLAND DAFFODIL SOCIETY.

NOWADAYS no better testimony to the popularity of gardening can be afforded than by the formation of special societies for the purpose of advancing some particular flower, fruit, or vegetable in the estimation of the public. This is an age of specialists, and those who advocate the formation of these special societies and give them their support do not do so out of any hostility to those associations which devote themselves to the promotion and development of horticulture in all its wider aspects. Many of the old provincial florists' societies are now defunct, partly because the craze for the particular flower they were formed to cultivate died out, and partly because they set up standards of ugliness which the public would not follow. Unfortunately, some of these false ideals of beauty still cling to a few of the survivors of the present day, and that is why we still see flowers like the Carnation and the Pansy shown on boards and surrounded by a hideous paper collar. We are led into this train of thought by the arrival of the neat little brochure of the Midland Daffodil Society containing the report for 1905 and the schedule of prizes for 1906. The report is full of interest to Daffodil lovers and reflects the skill and energy of those responsible for the guidance of this progressive society.

A Suggestion to Other Societies.—Daffodil and spring flower societies are now being formed in all parts of the country, and we are rather surprised that they do not follow the example of this Midland society and publish more than a mere balance-sheet and schedule as most do. Apart from the report of the annual conference, the lists of varieties contained in the winning exhibits are alone of great educational value, because members are enabled to see at a glance what are the flowers most worthy of cultivation. At a Rose show we frequently see varieties in the winning stands which are wholly unfit for garden decoration, but, happily, the Daffodil is differently constituted, and, as a rule, the varieties most frequently exhibited are the best for general culture. Nowadays an

exhibition alone scarcely seems a sufficient excuse for the existence of any society which is really anxious to spread abroad a knowledge and love of flowers. After all, so little is known of the cultural details necessary to produce the most perfect Daffodils that there is ample scope for their discussion, especially when a gathering of growers from all parts of the country affords such an excellent opportunity for doing so. We append a list of a few of the subjects on which more light is required: Cross-fertilisation and seeding, the most suitable manures, soils, colour and what makes it, the Daffodil fly, basal rot, the yellow stripe disease, classification and nomenclature, &c. Even in this short list there are topics enough to keep several conferences busy for days.

Tasteful Arrangement.—Few flowers lend themselves so well for the purpose of house



HAKEA SALIGNA.

decoration as Daffodils, and it is always pleasant to know that the public are being encouraged not only to grow them well, but also told how to arrange them with care and taste. Even though the Daffodil has become a florist's flower in the old sense of the term, yet there is no fear of its beauty being spoilt as long as those who are responsible for the management of our spring flower exhibitions discourage all attempts at ugly methods of staging and anything calculated to debase such a noble flower. In this connexion it is interesting to quote Mr. Burbidge's words from the report to which I have just referred. They are as follows: "One thing struck him, that was the better arrangements and the greater taste evinced, not only in the showing of the finer blooms, but in showing collections and decorative classes. The table decorations of to-day he thought were extremely beautiful." This is as it should be, for unless the shows help to educate the

public taste, it is hard to see what useful purpose they serve.

Suitable Backgrounds.—A point that the managers of all flower shows should study is the subject of colour backgrounds. Most people will recollect how the Sweet Pea Centenary Exhibition was marred throughout by the juxtaposition of the flowers with crude red baize. The Daffodil is a flower that requires a well-chosen background. We never remember to have seen a better colour than that always employed by Mr. Engleheart on which to display his seedlings. This is a peculiar tone of greyish green, and we would commend its use to all those who are anxious to display their flowers to the best advantage. A little upholstery detail such as this may seem not worth troubling about to some, but only too often one sees floral exhibitions ruined by hard garish backgrounds.

Correct Naming.—Another point to be insisted upon is that all exhibits should be correctly named. We are glad to see that this is a very strict rule at the Birmingham show, as it is naturally of the greatest help both to the judges and exhibitors, as well as to the public, who come to learn what are the best varieties to grow. Thinking it might be of interest to readers of THE GARDEN, we have analysed the lists of varieties (moderate priced) exhibited in the winning exhibits at the Birmingham show last April, and append a list of those which were most frequently exhibited.

Twelve Trumpet Daffodils.—Emperor Empress, Horsfieldii, Glory of Leiden, Mme. Plomp, Victoria, Mme. de Graaff, J. B. M. Camm, Grandee, Mrs. Camm, P. R. Barr, and Captain Nelson, and W. T. Ware (equal twelfth).

Twelve medium-crowned Daffodils.—Barri conspicuus, Minnie Hume, Sir Watkin, Flora Wilson, C. J. Backhouse, Frank Miles, Duchess of Westminster, Lulworth, Stella superba, Beauty, Katherine Spurrell, and Mme. de Graaff and Mrs. Langtry (equal twelfth).

Six small-crowned Daffodils.—John Bain, Agnes Barr, Ellen Barr, Vanessa, Baroness Heath, and Falstaff.

Six Poeticus.—Ornatus, præcox grandiflorus, Almira, Homer, poeticus grandiflorus, and poeticus poetarum.

Qualities of the good Daffodil.—On this subject the Rev. S. E. Bourne made some excellent remarks at the Midland Daffodil Society's conference, which are worth reproducing here: "A thing," he said, "which pleased him very much was that there were fewer exhibits of the big, uncouth Daffodils. They were not entirely absent, but much fewer this year than in any previous show. These big Daffodils were lacking in shapeliness, but that was not the worst of it. When that class of flower was put into an English garden, it generally happened that a great part of the size disappeared in a year or two, and only the ugliness remained. He admired as much as anyone a really large graceful Daffodil such as the beautiful King Alfred, but he wished to distinguish between the coarse, big flowers and the graceful refined flowers. There was a mission in life even for the big coarse Daffodil, but it was a negative mission. It might be occasionally exhibited as a shocking example of what none of them should try and produce or grow. There were two things necessary to make a good Daffodil whatever class it belonged to—gracefulness

of form and symmetry of proportion. Its curves and outlines should be graceful, and it should be strictly well balanced. Balance must be right or the flower would be wrong. There were some flowers still very popular, which directly they looked at them seemed to be all trumpet or all perianth. But what would they think of a man who had a very beautiful, massive, intellectual head put upon a little dwarf diminutive body? So it was with the Daffodil; everything should be well balanced if it was to be beautiful. But the public taste was getting more and more educated. People were now looking for beauty rather than size. He appealed to them all to aim at well-proportioned flowers both in seed raising and exhibiting."

Of course, after all, a great deal rests with the judges, and those responsible for the management of Daffodil shows should endeavour to obtain those who really understand the points of a good flower, and are, therefore, not likely to award the premier prizes to the stands which contain the largest and coarsest flowers. Size must be accompanied with refinement if it is to carry weight, and flowers with a weak floppy perianth, such as Hodsock's Pride, &c., should be rigorously discouraged. By this means the public, as well as the exhibitors, will quickly learn that the real points of a good flower are a shapely trumpet or cup, a perfect perianth, and a proportion of harmony between both. But a perfect perianth in our estimation does not necessarily mean one that is stiff, and at right angles to the tube, because the beauty of many flowers would be entirely spoilt if this were insisted upon. A large bold trumpet flower is certainly enhanced in beauty by a firm perianth, while, on the other hand, such a condition would entirely detract from the elegance of such flowers as Waterwitch and others of its type. There can be no hard and fast line, but each flower should express the most beauty of which its kind is capable.

Single Blooms.—The classes for single blooms which have now been added to the majority of schedules afford an excellent opportunity for the judges to define the points of a good flower. It is obvious that in such classes mere size should not be taken into account, but rather the all-round excellence of the flower. At Truro these single bloom classes have always provided an interesting competition, and now we notice that the Birmingham Society has adopted the same idea, except that there are no restrictions as to whether the flowers exhibited are in commerce or not. It is to be hoped that suitable vases will be provided for these classes, as one solitary flower in a vase which is intended to contain four or five looks rather out of place.

Bulbs in Water and Moss Fibre.—As for the system of growing the bulbs in moss fibre without drainage, and also in water, we have nothing but praise for it, and are glad to see that the system is being worthily encouraged at Birmingham, enabling as it does those who do not even possess a back yard to grow beautiful flowers to perfection.

A Suggestion.—Bearing in mind, too, the good work done by such men as John Horsfield in days gone by, we should like to see framers of schedules include classes for cottagers and working men generally. The future of the flower lies in the hand of the million, and they should be encouraged to grow it.

A. G.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

ROSE COMTESSE RIZA DU PARC.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—On page 351, under the heading of "Roses for Beginners," I notice that a Tea-scented Rose is recommended which has not been at all a success with me. I allude to the variety which heads this note. Looking at it from every point of view, I cannot understand why the writer should advise "beginners" to procure this variety. The last five or six years have seen such an immense advance in this class of Roses that it seems to me a great mistake to praise sorts which are entirely unsuited to our climate. What is the real truth about Comtesse Riza du Parc? My answer to this question is that it rarely, if ever, opens properly; that its flowers are poor, flimsy, misshapen things; and that they are rather sensitive to cold and wet. Some people may plead that the flowers are of pretty colouring, and I am quite ready to grant this. But surely it is not fair to "beginners" to advise them to buy a Rose of poor quality, and one which breaks into many heads and scarcely ever provides one with a decent bloom!

As far back as December 22, 1900, I wrote in THE GARDEN as follows: "Comtesse Riza du Parc is a Rose which seems to me to be much overpraised. Grown as a dwarf it has been very disappointing here; its blooms are of confused

Mr. William Robinson also (see "Flora and Sylva," Vol. I., page 306) warns intending planters to omit it from their lists. I quote both these authorities simply to show that it would be difficult to find a Rose which is more likely to disappoint a beginner. It is in no carping spirit that I write, but simply in the interests of others who may thus be spared a vexatious lesson in the dear school of experience.

Kidderminster.

ARTHUR R. GOODWIN.

CARNATIONS AT NEWBOLD REVEL.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I send you a photograph of a house of Tree Carnations as they appear here at the present time. The house contains about 800 plants, arranged on central and side stagings. The varieties grown in quantity include Mme. L. de Rothschild and Reginald Godfrey, soft pink; W. Robinson, scarlet; and Miss M. Godfrey, which is the favourite white variety here. Of others grown here of more recent introduction the following are well worth cultivating: Eachantress, flesh; Mrs. T. Roosevelt and Nelson Fisher, deep cerise, both beautiful, especially in artificial light; Lilian Pond and The Belle, white; Flamingo and Adonis, scarlet. Harry Penn, Governor Roosevelt, and Harlowarden are all good crimsons, the latter, in my opinion, being the best of the three.

ALFRED CHEFFINS.

COOKING POTATOES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—It is a curious comment on the advice to cook Potatoes in their skins, that in the case of



TREE CARNATIONS AT THE GARDENS, NEWBOLD REVEL, RUGBY.

shape, and in no way does it seem to be a satisfactory 'garden' Rose."

I now turn to "The Book of the Rose," and find that the late Mr. Foster-Melliar's verdict upon it is as follows: "This Rose is very faulty in form, and a good-shaped one is rare indeed. It is not large, a free bloomer, or a good autumnal, and is only noticeable for its colour, which is a charming shade of pink, with an indefinable sensation of yellow pervading it, especially at the base of the petals. It is really not to be recommended, but a good Rose of its colour would be heartily welcomed." Since Mr. Foster-Melliar wrote this, however, many Roses of supreme beauty have been given to the world, and there are several varieties whose colouring is every whit as beautiful as that of Comtesse Riza du Parc.

young ones they are invariably scraped hard before being served to table. That is done not only because when cooked the skins have an objectionable appearance, but also because they are, if eaten, quite indigestible. In the case of old Potatoes, those on which the skins are hard set, and can only be remedied by peeling, cooking them in their coats is very well so long as it is certain the flesh is untainted with fungoid spores. To make certain on that point is one strong reason in favour of peeling. Again, Potato skins often become imbued with the taste of the soil or manure in which grown, and cooked unpeeled, that taste boils into the tubers, and is described as "earthy." Worse still when Potatoes have been exposed to the air, although secluded from light, yet the skins become somewhat

bitter, hot, or astringent in taste, and that taste boils into the flesh also. That is specially the case with Potatoes exposed to both light and air in markets or shops, and has to be taken full account of. It must be remembered that the great mass of Potato consumers have to purchase their tubers subject to these conditions. Then when cooked in their skins it is either needful to have the coats removed before being sent to table, during which process heat is lost, or if sent to table in their coats, how objectionable to have these coats lying about on the consumer's plate. We should not dream of treating any other vegetable in the same way. It would be as reasonable to send Peas cooked in their pods to table as Potatoes in their skins. A good Potato will, if properly cooked, be far more presentable at table if peeled first, and can be served up in all its goodness. The assumption that peeled Potatoes when well cooked lose in flavour or nutriment is illusory.

A. D.

CORDYLINE AUSTRALIS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—The accompanying illustration shows a remarkably luxuriant example of this interesting



CORDYLINE AUSTRALIS IN THE NURSERIES OF MISSRS. PENNICK AND CO., COUNTY WICKLOW.

Cordylina, presenting a very handsome and distinct aspect. It is growing in our Delgany Nurseries in County Wicklow, and carried twenty-eight inflorescences this season. It is a prevalent idea that this shrub is very tender; but it is quite hardy here, enduring keen north-east exposure 400 feet above sea level. No precaution is taken against frost, and plants have never been injured. In very severe winters if cut down they throw out offsets at base. The seeds mature freely, and plants germinated from them are better fortified to withstand climatic vicissitudes.

PENNICK AND CO.

Delgany Nurseries, County Wicklow.

THE FLOWER GARDEN.

THE AUTUMN STERNBERGIAS.

THE question of how to bloom the Sternbergias annually in the open air is of great interest to many, and one, too, which, were it satisfactorily solved, would do much to add to the beauty and enjoyment of the garden in autumn. There are some, it is true, who can bloom *Sternbergia lutea* freely almost every season, but these do not appear to be numerous. There are many more who cannot help envying those who are fortunate enough to have these golden flowers in their gardens every autumn—fit companions to the Crocuses and Colchicums, which may abound at that season if we care to cultivate them. It is not difficult to grow the latter, but, unfortunately, one cannot say the same of the Sternbergias. One is always interested in knowing the precise conditions under which these flowers can be induced to bloom, and it is rather annoying to have pet theories upset, even if formed after considerable experience.

Thus I was rather disappointed to learn from Sir Herbert Maxwell that *Sternbergia lutea* had not flowered with him in 1905, although it had done so in the two preceding seasons. This is contrary to what one had expected, as it has been generally understood that a warm and dry season, like the past summer, was the most suitable for the Sternbergias in our climate. My greatest successes have been with a narrow-leaved form of *S. lutea* called *angustifolia*, but this year my bulbs had to be removed as late as April or May to this garden, so that I had no flowers this season. By way of recompense, however, I am blooming *S. lutea* from bulbs kindly sent me by Mr. Whittall this season, and I have also *S. macrantha* in flower.

It is, however, just this almost unfailling bloom of newly-imported bulbs which is so tantalising, as it shows us that we either have not fully learned how to flower the Sternbergias, or that the climate of the greater part of these islands is not suitable for them.

One is inclined to think that this narrow leaved form of *S. lutea*, which, as I have said, is called *angustifolia*, is the most free flowering. In my former garden I bloomed it after it was established, as well as the year in which it was received, but the typical *S. lutea* and *S. macrantha* baffled one's attempts to flower them by cultivation in the ordinary way, i.e., by giving them a sunny position in sandy soil in a sheltered place in the rock garden or in the border. I have rarely had flowers of *S. macrantha* in the second or third year. With *S. angustifolia* I was more successful. The bulbs were planted as closely together as possible in sandy soil well mixed with old mortar rubbish. This was close to a gravel path, so that free drainage was secured and full sun all day long.

I am adopting a similar treatment with my newly-received bulbs of *S. macrantha* and *S. lutea* this season, and I hope to be able to report either success or failure by and by. Many bulbous plants flower far more satisfactorily under practically starvation treatment if they have to be left in the soil than in a rich compost and well fed. We have, for instance, the *Triteleias*, most of which are

surprisingly free and increase rapidly in a gravel path. Those cultivators who cannot lift their *Montbretias* almost annually for replanting after separation of the bulbs will find these valuable flowers bloom much more freely among gravel than in a richer soil. I hope that the Sternbergias when jammed together among lime rubbish, stones, and poor soil will give me the satisfaction one experienced when *S. lutea angustifolia* rewarded one by coming into bloom under such conditions.

S. ARNOTT.

Sunnymead, Maxwelltown, Dumfries.

VIOLETTA PANSIES FOR THE ROCK GARDEN.

THESE beautiful little tufted Pansies, better known as *Violettas* or miniature flowered *Violas*, should be planted freely in the rock garden. During the late summer few flowers are in bloom in the rock garden, and it is then the Pansies are so useful. From late April until the autumn—we gathered flowers in October, and even later in some instances—they flower freely and continuously. They are also sweet scented. The plants, when first acquired from the specialist are very small, but as they are usually very sturdy and well rooted this does not matter. Given good soil, deeply dug, and enriched with plenty of well-rotted manure, these small pieces develop quickly into strong tufts. We planted some hundreds of such pieces in April last, about 6 inches apart each way, and in August and September they covered the ground with their growth. The majority of the varieties have flowers on long, erect flower stalks, which develop well above the foliage. Varieties are not very numerous, but some beautiful new sorts have been raised. The rock garden is the place to plant the *Violettas*; they succeed better when left in one position for two or three years at least. In this way they make large pieces, and only need to be cut back after the flowering season each year.

D. B. C.

THE FRUIT GARDEN.

CURING A BAD CASE OF CANKER.

A FEW years ago I was asked to deal with a tree of Cox's Orange Pippin Apple which was much cankered and did not fruit. The point where the branches joined the trunk was almost eaten through, in several places, by canker. I cut out all the bad portion, and, in one place, actually made a hole through the trunk with the knife—the trunk being about 6 inches in diameter—in cutting away the cankered portion. I then painted the wounds over with undiluted Fir Tree Oil several times, but did not give any other dressing. Upon examining the roots I found that they were growing in very heavy clayey soil; they were duly root-pruned and the trench filled in with a portion of the original soil with some new lighter loam mixed with it. The following summer the tree bore a good crop of Apples, and has continued to give satisfaction ever since. The wounds healed, and a few years afterwards there were neither signs of canker nor of wounds, only some shallow hollows covered with healthy bark.

Bournemouth.

AVON.

THE KIEFFER PEAR.

A POOR FRUIT.

LARGE quantities of the Kieffer Pear are now imported to this country from the United States, and the variety has been strongly in evidence this season in fruiterers' shops and on hawkers' barrows throughout the metropolis. In many instances it has been labelled Williams', but those who were misled by this title have had a great disappointment. At its best it is a poor Pear, and occasionally the flavour is quite objectionable. All who are concerned in promoting

the culture of good quality fruits will join in the hope that the variety will never be planted extensively in this country. Owing to its origin the Pear possesses much interest, and it may possibly become the progenitor of a new race of better quality adapted to special situations. As a starting point it is worthy of attention, but unfortunately the variety has been already increased so rapidly and planted so largely in America that European markets will be flooded with it for years to come. The seed parent of the Kieffer Pear was *Pyrus sinensis* (the Sand Pear), which is represented in the Kew collection, and in the official list it is recorded as synonymous with *P. japonica*, *P. Sieboldii*, and *P. ussuriensis*. It is supposed that flowers of the Sand Pear were accidentally crossed with pollen from a good variety of European Pear, and thus the improvement in the fruit as compared with those of the seed parent has resulted, though there has been deterioration on the other side. The fruits are bright in colour, distinct in form, and freely produced, the tree being adapted for growing in warmer or dryer situations, or lighter soils than other Pears, except one which is of similar origin named Le Conte. The possibilities for obtaining a useful and distinct race of Pears from such a start are great, and it is worthy of close attention by hybridisers on that account. As a curiosity it should be included in all large collections where fruits are studied, but beyond that no British cultivator should go while he has so many superior varieties at his command. R. LEWIS CASTLE.

THE CHINESE PRIMULA.

(*PRIMULA SINENSIS*.)

GREAT developments have been made during the past twenty years or so among the Chinese Primulas. My notes do not apply to the stellata type. Unless these are grown and produced under the best possible conditions I can see little merit in them. During the last year or two I have devoted considerable attention to and have grown most of the better sorts. My object has been to flower them in the smallest pots possible, and by so doing the plants are far more serviceable and pleasing than when potted, as they frequently are, in pots too large. Three sizes in which we flowered a large batch this year and last were 4½-inch, 4-inch, and 3-inch, and I have come to the conclusion that these are quite large enough to produce both plants and flowers of the highest quality.

SEED-SOWING—This is frequently done too early, and unless the plants are wanted for flowering during early autumn, from the middle of June is the best time to sow, though some of our best plants this year were produced from home-saved seed sown the second week in July. The seed-pans should be well drained and the compost of a light porous nature, a capital mixture being three parts finely sifted leaf-soil, one part light fibrous loam, and one part silver sand. This should be made moderately firm and the seed scattered thinly but evenly over the surface, and lightly covered with the finest of the soil. Give a thorough watering, cover with a sheet of glass, place on the shady side of a stove or forcing house, carefully attend to the watering, and immediately the young plants appear place on shelves near the glass in the

same temperature until the appearance of the second leaf. They should then be potted singly into 2½-inch pots, using the same mixture as already mentioned. Grow on in a light position in an intermediate house or pit, and after the young plants have started to grow well very little more fire-heat will be required. A mistake too often made in *Primula* culture is that of giving too high a temperature, the result being drawn foliage and poor flowers. By the middle of August the plants should be ready for another shift into 3-inch pots. The compost should be somewhat coarser, and the leaf-soil and loam in equal proportions. Cool pots or frames will now suit them admirably. Place the pots on a good bed of finely sifted cinder ashes, elevate as near the glass as possible, avoid overcrowding, and air freely, removing the lights entirely during early



AMERICAN MISTLETOE (*PHORADENDRON*).

evening until night. Very little shade should be given (and this of the thinnest material) for a few hours during the hottest part of the day. Syringe well between the pots, and spray the foliage during early afternoon on a fine day. By the middle of September

THE FINAL POTTING should be given. Have the pots and crocks clean and the drainage carefully prepared with a layer of fibrous loam placed over it.

A similar compost to the last should be used, adding to every four bushels a 6-inch potful each of finely-crushed charcoal, mortar rubble, and bone-meal. Thoroughly mix a few days before required, and use when in a suitable condition. Pot moderately firm, surface with a dressing of silver sand, and neatly peg at the axils of the leaves to hold the plants in position. Damp over with a fine rose water-pot, transfer them to cool pits or frames, and by the end of the third or fourth day, according to the state of the weather, thoroughly water. Grow cool and give air freely. The plants may remain in such a position till the beginning of November. The smaller and weaker plants may be allowed to flower in 3-inch pots. After this date steps should be taken to house the plants safely either in low span-roofed greenhouses or in light pits, with the command of a little fire-heat. In either place the plants should be placed on a cool bottom as near the glass as possible, and abundance of air given on every favourable occasion. Fire-heat should only be applied to counteract frost and damp. Generally speaking, the three months January, February, and March, unless, of course, for any

special reason, are the time to aim at having them at their best, and until the middle of December the earlier trusses of flower should be picked off.

FEEDING.—From the time the pots become fairly well filled with roots the plants will bear liberal feeding. Peruvian guano is unquestionably one of the best stimulants for them. Soot, horse and cow manure properly made and used at a moderate strength are also good for them, and during the short, dull days of winter, when little water can be given, Clay's Fertilizer is excellent. The feeding should continue until the flowering season is over and indeed after if it is one's ambition to save seed, and this is extremely interesting. Primulas are best and most effective when arranged in batches in separate colours, and though small greenhouses, or parts of houses, are unquestionably the most suitable place for flowering them, it is surprising how well they look and do when arranged in late vineries or cool orchard houses, providing these are fairly light and drip proof. To get good seed after the plants are past their best they should be placed on shelves in cool houses near the glass, where plenty of air can reach them. To produce a good crop of seed watering and feeding must be attended to until the pods are sufficiently ripe to pick.

VARIETIES.—By far the best white out of many we have tried this year is Webb's Avalanche. This variety has dark red foliage, large finely-formed flowers, and the trusses throw up well. When fully developed this is unquestionably the finest white Primula that has come under my notice. Sutton's Pearl and Snowflake are also both good and distinct whites. Sutton's new variety, the Duchess, is a remarkable break, very pleasing and effective, of good habit, and very free flowering. This

should be grown by all. Veitch's Chelsea Scarlet is one of the best of this type. Meteor, Webb's, and Carter's Holborn Prize are both excellent. A new variety I raised here, called Aldenham Scarlet, is by far the brightest and nearest approach to a real scarlet I have seen. Aldenham Pink is a variety much liked here. Chelsea Blue, though of course, not a true blue, is the best of its colour we have. There are many more beautiful and distinct varieties, but I have named those only which I consider best among a large number grown here.

Elstree.

E. BECKETT.

TREES AND SHRUBS.

AMERICAN MISTLETOE.

AMERICAN Mistletoe is the name for a *Phoradendron*, plants which are found growing on trees in the United States, where they are said to grow very luxuriantly, and make striking objects when covered with berries. In the *Garden and Forest* for March 18, 1896, page 113, Mr. E. M. Plank, in his notes on a Botanical Journey in Texas, writes: "The common Mistletoe *Phoradendron* is abundant, and grows to a large size on the western Cottonwood from lower down the river to New Mexico. The stems are sometimes 2 feet or

3 feet long. In Texas this particular species with several forms grows on Hackberry, species of Elms, Oaks, Mesquit, Ash, Osage Orange, Cottonwood, and Forstiera; but I have never seen it on the Apple as in the Eastern States." He further states that it kills large limbs above the point of union, and that it is more common in Central and Eastern Texas than in Western Texas. It is also found in the Indian Territory, Arkansas, South-east Kansas, Missouri, and eastward across the country. Species of *Viscum* are also found in America, *V. flavescens* occurring on old or decaying Pines and Cedars from New Jersey and Ohio to Florida and Louisiana, and *V. villosum* in the Oak woods of Wahlamet, Oregon. The berries of these are white. W. DALLIMORE.

A FAMOUS ASH TREE.

In the accompanying illustration the Ash shown is a tree 98 feet high, and the longest remaining streamer is about 20 feet from the ground. Some few years ago, during a great gale, we had two cartloads of these weeping streamers broken off from the exposed west side. This Ash tree was grafted by Mr. Barron some seventy years ago. The stem was one of many growing closely together at the time. There is an Alder tree growing near, very similar, and about 100 feet high, with one long, straight stem, also an immense Ash with a bole 18 feet in circumference. It is supposed to be the largest in the country. Barron also put many grafts of Weeping Ash on this tree, but they have been overgrown by the stock.

J. H. GOODACRE.

Elvaston Castle Gardens, Derby.

BERBERIS VIRESCENS.

TREES and shrubs with brightly coloured foliage in Autumn are none too plentiful, and any addition to the number is sure to be appreciated; but the above deciduous Barberry, which was introduced from the Himalayas, will become justly popular when better known. It is a neat-growing shrub, with small, shining green leaves, and succeeds well in these gardens on a cold clay soil. The foliage does not change colour until the second week in October, when it assumes very pleasing reddish scarlet tints which, with us, last well into November, after all the other shrubs with autumn foliage have lost their beauty. The stems are also very ornamental, the bark being a pale scarlet colour, which becomes brighter as the winter advances; and, on this account, it is especially desirable. Quantities of young shoots appear annually from the base, and, though little pruning is needed, it is advisable to remove the old stems when they have lost their colour, as this renders the growth more vigorous. As a single specimen in the shrubbery this *Berberis* is very beautiful, and would, I am sure, prove valuable for grouping in the same way as the Scarlet Dogwood or Willow, on account of the richly coloured stems which, in a mass, would be extremely effective.

A. E. THATCHER.

Aldenham Gardens, El-trice.

KALMIA LATIFOLIA (CALICO BUSH).

Of the *Kalmias* hardy in this country this is the best, and also the one most generally planted. It makes a large, shapely shrub, attaining a height of 10 feet or so with age, with thick, leathery leaves borne on long petioles, dark shining green in colour, and usually turning upwards at the edges. The flowers appear in medium-sized corymbs in June and July, and are of a rose-pink colour, inclining to white in

the centre, making it one of the best flowering shrubs in its season, and a worthy successor to the Rhododendron. When forced or brought on under glass the flowers lose their colour and open quite white. This should be borne in mind when they are required for indoor decoration, for which this plant is very suitable. *K. latifolia* is sometimes difficult to deal with, as it gets into a stunted condition, and neither grows nor flowers. When this is the case the best remedy is to take them up and loosen the soil around the ball so as to free the roots, which seem to be unable to get away freely without assistance. Planted again, with a little peat or good leaf-mould, they soon grow away and get into good condition again. A peaty soil is usually recommended for *Kalmias*, but I have seen this one thrive well in a soapy yellow loam, which, of



WEeping ASH (98 FEET HIGH) IN THE EARL OF HARRINGTON'S GARDEN AT ELVASTON.

course, must be free from lime, which is as injurious to *Kalmias*, as it is to Rhododendrons. It is an evergreen species, a native of North America, and was introduced to this country about 1734.

Bagshot, Surrey.

J. CLARK.

EUCALYPTUS GLOBULUS.

In sheltered positions in the southern counties this beautiful tree thrives amazingly in the open air. Not only does it succeed when grown as a standard or bush-shaped tree, but also as a wall plant. There are many fine specimens to be seen to-day in the gardens in and around Bourne-mouth. Some are more than 20 feet high, with

correspondingly large trunks, and many of the leaves measure 9 inches long and 3 inches wide. The appearance of such specimens is very striking, as they form a distinct feature of the garden in which they grow. In ordinary winters there is no need to wrap protecting material round the plants, but during very severe frosts it is a wise plan to wrap hay or straw-bands round the stems from the base to well among the branches. It is the stem which suffers most through frosts. Near Southampton a very large Eucalyptus grew in a gentleman's garden unprotected for fifteen years, and during that period there had been no exceptionally hard winters. But at last the noble tree was killed. It had attained to a large size, was well branched, and evenly developed. When a very severe frost was disappearing the stem split very badly, and from that date the tree began to die. The stem had become frozen through, and when the thaw came it was split open. Had it been well wrapped up it is probable that the frost would not have had this effect upon it. When once the trunk is damaged in this way there is little hope of saving the whole tree, but if a few branches are totally destroyed more will grow again from the stem. The Eucalyptus is easily raised from seeds, which may be sown in a flower-pot in spring and placed in a greenhouse. The seedlings should be grown the first year in pots, singly, and then planted in the open in May of the following year. AVON.

COLOURED PLATE.

PLATE 1289.

CHERRY EARLY RIVERS.

A VERY valuable early Cherry, both for culture for market and in private gardens. The tree grows very freely, and never fails to bear, and from its early ripening the fruit fetches a high price in the market. This variety is suitable for pot culture, for growing on walls, or in any other form for gardens. The tree is of weeping growth, therefore orchard standard trees require to be severely pruned for the first five years to keep the lower branches from cattle. This Cherry is growing more popular every year, as its value becomes more widely known. Standards produce large crops of handsome fruit ready for gathering early in July out of doors. In the orchard house the fruit ripens the second week in June, and will hang for a month. The fruit is large, bluntly heart-shaped, deep, shining black, flat on one side, with mulberry-coloured flesh, very juicy and richly flavoured.

NEW AND RARE PLANTS.

A BEAUTIFUL NEW ORCHID.

THE name given to a very beautiful new hybrid Orchid recently shown before the Royal Horticultural Society is *Odontoglossum* hybrid *Smithii*. This is possibly the most remarkable hybrid *Odontoglossum* ever shown before this society. Its parents were *O. Rossii rubescens* and *O. harryano-crispum*. There is a margin of purple around the flower, broadening at the ends of sepals and petals. The remaining ground colour of sepals and petals is cream, faintly tinged with green in the former; it is marked with purple-black spots so close together as almost to form a mass. At the base of the upper sepal there is a bar of



CHERRY EARLY RIVERS.

purple-black, and also at the base of each petal a smaller similarly coloured mark. The lower half of the lip is purple, the upper part cream-coloured, with a yellow frill, and spotted with dark purple. It was exhibited by Messrs. Charlesworth and Co., Heaton, Bradford, and received a first-class certificate.

THE ROSE GARDEN.

SOME RED AND CRIMSON TEA ROSES.

FRANCIS DUBREUIL — Roses of these colourings are so scarce that it makes one reluctant to discard any of those which we possess.

The first variety which I had on trial was *Souvenir de Thérèse Lévét*. From a garden point of view this Rose proved valueless, and was quickly discarded. Since then I have been depending upon the variety at the head of this note, but it, too, has proved of no account in the garden, as the flowers are easily injured by wet weather. Moreover, the plant is not particularly hardy, and most susceptible to mildew.

Général Gallieni. — It seems curious that many of the red Tea-scented Roses are of straggling growth. This is the fault of *Princesse de Sagan*, and also of the variety under notice. The best way to grow this latter is as a half standard. It is one of the Roses I would never like to be without, on account of its rare beauty when cut. It was raised from a cross between *Souvenir de Thérèse Lévét* and that once-popular Tea Rose *Reine Emma des Pays-Bas*, and was sent out by Messrs. P. and C. Nabonnand of Golfe Juan in 1899. The colouring of *Général Gallieni* is so exquisite, but withal so very difficult to describe, that I will not attempt to do so. Instead I will content myself by giving three descriptions of this Rose from the catalogues of some of our largest English growers, and leave readers of THE GARDEN to decide which they consider is the most truthful.

Messrs. Frank Cant and Co.'s catalogue says "colour bright cerise, base of petals coppery orange, reflex bright red. Small pointed buds perfectly formed, and produced profusely and continuously, a good bedder." In Messrs. Wm. Paul and Son's catalogue it is described as "crimson, tinted with blood-red," and in Messrs. Paul and Son's "reddish violet, with white base to petals; fine bold buds." About twelve months ago Messrs. Soupert and Notting of Luxembourg sent me a plant of a Tea Rose named

Ami Stecher, which was distributed by Weber in 1899. So far I have only grown it as a pot plant, but I consider it so promising that I intend budding from it next season. The flowers are small but very nicely formed, and of a pretty ruddy crimson shade.

Alphonse Karr, an old Tea Rose, sent out by Nabonnand as far back as 1879, is still worth growing, and I was pleased to see that Messrs. Jackman of Woking still retain it in their collection. The flowers are of a not unpleasant shade of purplish red, and the plant is very free. As a bedder I rather fancy that

Betty Berkeley will be a great success. It is of strong growth, almost as free as the *China Rose*, and is good both as a dwarf and as a half standard. In colour the flowers are midway between those of *Mme. Lambard* and *Francis Dubreuil*. The constitution of the plant is good and the growth upright. Of the newer Tea Roses the following red or crimson varieties should be worth a trial:

Antonin Reschal (Nabonnand). — A cross between the deep terra-cotta-coloured Tea Rose *Tillier* and *Papa Gontier*. The flowers are brilliant carmine, shaded with currant-red, buds coppery, of medium size.

Pauline de Casteja (Lévêque). — Handsome buds and large flowers; colour brilliant pure red.

Cardinal (Welter). — A cross between *Laurette Messimy* and *Empress Alexandra of Russia*.

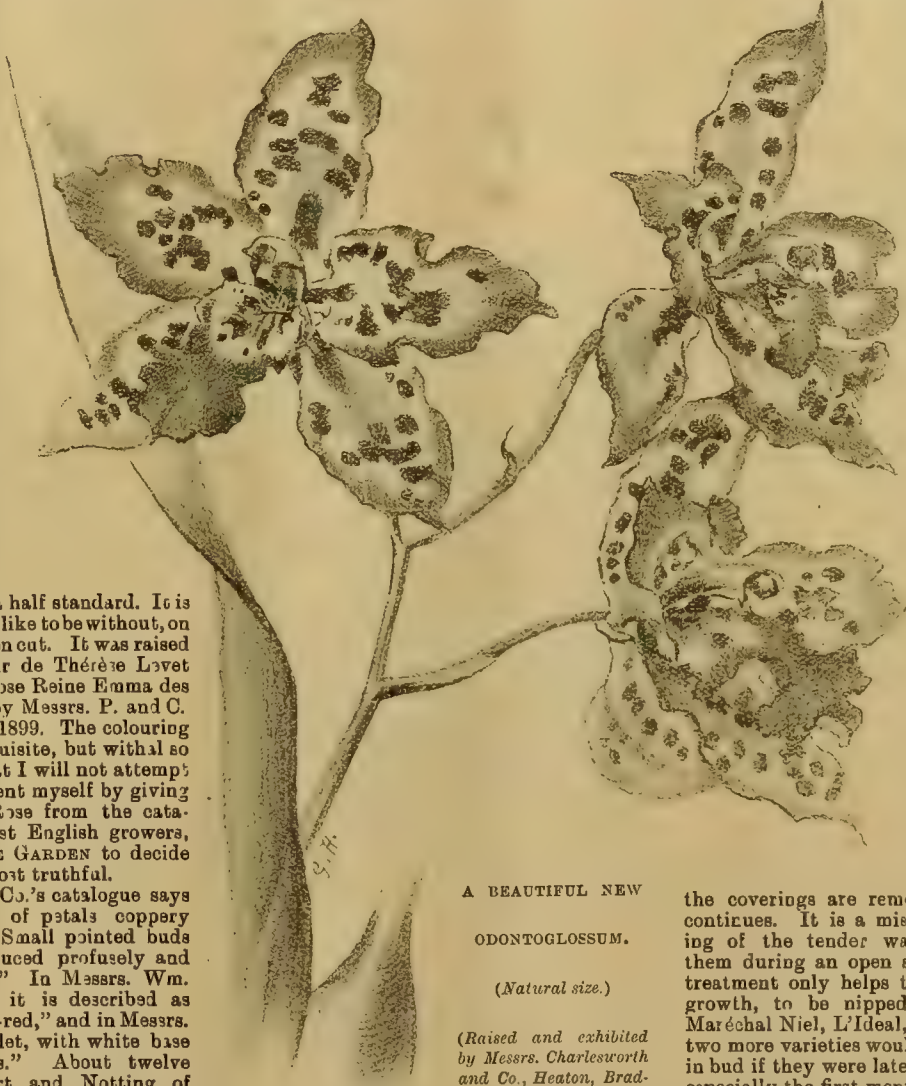
anything about the protection of Roses from frost during the winter months. This is in many cases a big undertaking, and in some instances a needless one, often doing more harm than good. Diversity of opinion exists on this subject, and will always do so. Should the situation be bleak and the soil in which the Roses are growing is light, some protection will be necessary, or in the case of tender varieties a covering will be required independent of the soil or climate in which they are grown. Notwithstanding this, however, both sides of the question should receive careful consideration.

I am much inclined to think that a great many Rose plants are mulched in winter that would be very much better if no covering had been used. No matter how good the mulching material may be when put on, it is apt to become impervious to air through the action of heavy rains, &c., so that before becoming of any real value during severe frost in December and January or cold winds later on, it has become almost solid. I have in my mind a Rose garden where the beds were mulched every autumn. The soil, being heavy, was all that could be desired, and the situation as regards shelter and exposure was also favourable for Rose growing; still the percentage of death every season was large. The covering process was abolished through a trial made in 1892, a season by no means open, and the deaths only numbered three. Very few Rose plants were required annually to make up the Rose beds for some years after.

Here the same treatment has been most gratifying; only those newly planted are protected with straw litter. Tender Tea Roses on the walls are protected both at the root and branch when the weather is severe, but the coverings are removed when mild weather continues. It is a mistake to allow the covering of the tender wall Roses to remain on them during an open spell of weather, as this treatment only helps to excite them into early growth, to be nipped in the bud later on. *Maréchal Niel*, *L'Idéal*, *Golden Gate*, and one or two more varieties would cause less anxiety when in bud if they were later in starting into growth, especially the first mentioned. *Maréchal Niel* is, unfortunately, always the first to push out its leaves and buds, and a season seldom passes but some of its best blooms are spoilt. The covering used for the wall Roses is Spruce branches that have lain for some time; some of their needles having fallen off, they are not too dense, but just in condition to shield the Roses from frost and cutting winds. These branches are tied to nails fixed in the wall at convenient places, the strings being tied so that they can be undone without using the knife. By adopting this method a good space of wall can be covered or uncovered in a very short time.

J. JEFFREY.

St. Mary's Isle, Kirkcudbright.



A BEAUTIFUL NEW
ODONTOGLOSSUM.
(Natural size.)

(Raised and exhibited
by Messrs. Charlesworth
and Co., Heaton, Brad-
ford, York.)

Flowers deep lake red, centre tinted with yellow. Buds long, opening into large and moderately full blooms.

The descriptions of these three varieties are from the raiser's catalogues, and I have not seen any of them.

ARTHUR R. GOODWIN.

PROTECTION OF ROSE PLANTS IN WINTER.

The description of new Roses and their treatment is a subject frequently discussed in the pages of THE GARDEN, but one seldom notices

GARDENING FOR BEGINNERS.

SIMPLE HINTS.

THE VARIEGATED MAPLE.—One of the most valuable variegated trees for small gardens is the variegated Maple shown in the accompanying illustration, *Acer Negundo variegatum*. It has beautiful green and white leafage, and shows very conspicuously if planted in front of dark-leaved trees, such as Holly, Yew, or other evergreen conifers. It retains its variegation excellently, much better than some variegated trees do. Occasionally green shoots will appear, and then, of course, they must be cut right out. A rather poor soil tends to make the tree retain its variegation well. In rich soils growth is apt to become luxuriant, and the leafage is more liable to revert to that of the type.

Chrysanthemum Cuttings.—Growers of large exhibition Chrysanthemums have hardly completed the work of the present season before they find it necessary to bestir themselves for beginning another season's cultural details. A difficulty that always confronts the inexperienced grower is that of knowing which cuttings are the best to select for the purpose of perpetuating the different stocks. It is a simple matter after all. The best cuttings are those that push their way through the soil at a point some distance from that portion of the old stem that was retained when the plants were cut down after flowering. Cuttings taken from off the stem, or close to it, sometimes evolve a bud prematurely, completely upsetting one's plans regarding their subsequent culture. Those evolved in the manner first referred to, invariably fulfil all that is required of them, and good results follow as a consequence. Do not select cuttings that are unduly stout. Select for cuttings growths of medium stoutness, and not more than 2½ inches to 3 inches in length. To "make" a cutting, the stem should be cut through immediately below a joint, using a sharp knife, so that the cut may be clean. Trim off the bottom leaf or the two lower leaves, should the cutting be short-jointed, and it will then be ready to be inserted. Growth intended for cuttings, if infested with green fly, should be dusted with Tobacco powder a day or two before they are required, as by this means the pest may be eradicated and clean stock provided.

Japanese Exhibition Chrysanthemums for Beginners.—Novices in Chrysanthemum culture sometimes go astray at the beginning. Blooms of many of the better sorts, as seen at the shows, are often most alluring, and for want of knowledge respecting such sorts a beginner procures cuttings or plants, and attempts to emulate what he has seen at the shows. Invariably he fails with the greater number of them, because a special system of culture is needed to bring them to perfection, more especially in the case of varieties difficult to grow. Fortunately, there are many excellent Japanese sorts of quite easy culture, and these the merest novice may take in hand with the sure prospect of achieving success. In early December, therefore, procure cuttings of the following exhibition varieties, and insert them in some light and sandy soil without delay: Lady Mary Conyers, rose pink, silvery reverse; Mrs. George Mileham, rich rosy mauve; F. S. Vallis, canary yellow bloom of beautiful form; Miss Mildred Ware, deep rosy cerise; Mrs. D. Willis James, chestnut terra-cotta, old gold reverse; Mrs. Greenfield, rich yellow, of beautiful form; Miss Elsie Fulton, pure white, of Japanese incurved form; Algernon Davis, rich bronze, shaded chestnut; Mrs. J. Dunn, pure white; Countess of Harrowby, soft pink suffused

a deeper shade; General Hutton, rich yellow flushed red; and Henry Perkins, bright chestnut crimson, on golden yellow ground.

Thumb Pots and Shallow Boxes for Striking Chrysanthemum Cuttings.—For exhibition cuttings should be inserted singly in 2½-inch pots, as subsequent operations may then be carried out without damaging the tender roots. Where a large number of plants must be raised for cut flowers, shallow boxes offer many advantages. In such receptacles the soil does not become sour, and the cuttings root very quickly. By the aid of a small trowel or kitchen fork the cuttings, when rooted, may be lifted quite easily.

Maidenhair Ferns in Rooms.—In a low temperature *Adiantums* often lose at this season in a cool room. At the present time growth is nearly dormant, though *Maidenhairs* are generally in good condition in heat, and if



VARIEGATED MAPLE (A. NEGUNDO VARIEGATUM)

necessary to cut them down they soon start again from the base, but in a cool room it is better to let them get dry after cutting back, and let them rest in a dry state till February. They will grow all the stronger for the rest, and when growth begins repot, and these plants will keep in good condition all the summer and autumn. If any increase is required, the spring, when new growth is starting, is the best time to divide. The *Adiantums* I am referring to are *cuneatum* and its variety *elegans*.—H.

Spring Planting of Tufted Pansies.—Tufted Pansies should be planted in spring, but to grow them well it is important to prepare places for them in winter. Beds and borders intended for them should at least be bastard trenched, i.e., dug two spits deep and the third spit forked over. Of course, when bastard trenching is done, the ground should be well manured at the time, and the surface soil left rough for the

frosts and weather to pulverise and sweeten it. Such drastic treatment of the soil invariably brings a handsome reward in the flowering season. Tufted Pansy quarters treated in this way provide a free root run for the plants, and enable the latter to take full advantage of the manure freely incorporated when the ground was trenched, besides providing for their well-being in long periods of drought. As opportunity offers, the work should be done as early as possible in the winter. Worm casts in the cold frames are causing some concern; indeed, in numerous instances cuttings and young plants have been completely lifted out of the soil. In such cases it is a good plan to go through the frames occasionally, pressing the soil firmly between the rows of plants. By this means the soil adheres to the stems of the plants, and saves many of them from hanging, which latter may possibly mean loss.

Troubles with Insects.—Every grower, even in a small way, has insect pests to contend with, and it is necessary to deal with them very promptly. In the outdoor garden a good deal can be done now by spraying with insecticides. Any strong solution of Sunlight soap, 4oz. to the gallon, dissolved in hot water, and sprayed over fruit trees, Roses, &c., will have a cleansing effect upon the trees and bushes, and it is cheap and easily prepared. Bordeaux Mixture is a preparation of copper sulphate and newly-slaked lime in the proportion of 2 lb. of copper and 1 lb. of lime to 10 gallons of water. The copper is dissolved separately, the lime mixed with water, then the two added together, and when properly mixed it will be ready for use, and may be sprayed over fruit trees and Roses which have been troubled with mildew or insects.

Soda Potash Spray Fluid.—The following is the formula given by Mr. Strawson in his recently-published book, and is what we are using: Caustic soda (70 per cent.), 1 lb.; carbonate of potash (80 per cent.), 1 lb.; soft soap, ½ lb.; water, 10 gallons. The potash and soda are dissolved in a tub that will hold 10 gallons, the soap dissolved in boiling water, and then added to the mixture in the tub, when it will be ready for use. Where there are only a few trees and one has plenty of time—many amateurs whose garden is their hobby are in this fortunate position—the most effectual method is to use a painter's brush, and so make sure that every part of the tree gets its share of the mixture. This is specially desirable in dealing with trees infested with American blight or scale.

The Carnation Maggot.—This is a destructive little pest which eats its way into the young shoots and works down to the main stem, and if not stopped will very soon destroy the plant. It is a plump little maggot about one-eighth of an inch long, and of a pale yellow colour. Unless a close watch is kept upon the plants it may work some time before it is discovered. The first signs of the presence of the insect will be a brown leaf or two coming in the young shoot. Later on the young shoot dies. Very soon other shoots will go the same way, and so the mischief spreads. The only remedy we know of is to dig the insect out with the small point of a penknife. We generally take off the shoot, find and kill the maggot, and this course must be pursued until the last maggot has been destroyed.

Violets for Frames.—There are plenty of side shoots on the plants now, and if these are taken off and inserted in boxes of sandy soil in a cold

frame they will root during the winter and be ready for planting out next March or April for lifting in September. It would, perhaps, have been as well if they had been taken off a little sooner, but there is time enough, and cuttings rooted now make better plants for lifting than old plants divided in spring, and the crowns will be better developed. Of course, a good deal depends upon the summer culture and the character of the soil. Where long-stalked single flowers are wanted, plant Princess of Wales, Admiral Avellan, and La France. A good variety of the Russian is still worth growing for planting on the south side of a hedge or wall.

Colour in the Garden in Winter.—Winter is a dreary time, and we want all the brightness we can get in the garden. There are not many flowers outside, the naked-flowered Jasmine and the Laurustinus are the chief things in bloom; but berry-bearing plants are numerous, and there are gold, grey and glaucous-tinted plants in many shades of colour, which, if planted freely, do much to brighten up the garden. Among berry-bearing plants and trees the Holly is pre-eminent. Cotoneasters, Crataegus Pyracantha (Fire Thorn), Aucubas, Skimmia japonica, Pernettyas, and Sweet Briars, especially the Penzance hybrids, give a bright glow of colour now. There are many effective trees among the conifers. Can anything be more beautiful than the glaucous-tinted forms of the Atlantic Cedar and Picea pungens glauca (Colorado Spruce)? There are golden varieties of Lawson Cypress, which are hardy and very effective. C. l. erecta aurea is an improvement on lutea, and Triomphe de Boskoop is a glaucous blue-tinted variety of great value to the planter. Among lowly things of a herbaceous character there are many plants adapted for

Growing for Winter Effect.—While clumps of Lavender and Rosemary give tints of grey, and the common evergreen Berberis Aquifolium has a warm glow of bronze at this season, Carnations and Pinks are pleasant to look upon now in the mass. Grey-leaved plants may be had in abundance, in such things as Santolina incana, Cerastium tomentosum, Stachys lanata, and Eonymus radicans variegatus. Ivies, of course, both climbing and bush, can be had in much variety, and no garden is well planted without some of them, and, in large places where there is scope, a good deal can be done to give colour to a garden by planting clumps of the Red Dogwood and the Golden Willow.

Increasing the Vine.—The usual way of increasing the Vine is by means of "eyes," taken in winter. The term "eye" denotes a cut portion of the previous summer's ripened wood, containing a bud. It is about an inch long, being cut close to the bud on both sides. Each of these "eyes" is capable under proper treatment of developing into a fruit-bearing Vine. After each bud or "eye" has been cut as shown in the month of January they are placed singly in small pots, 2½ inches in diameter. These are previously firmly filled with a mixture of loam and leaf-soil, and the "eye" is then pressed into this, until only the bud is visible. Plunge all the pots in fibre or sand over hot-water pipes in the warmest house at disposal, or a small hot-bed of manure might be made. Syringe them several times a day, and shade when the weather is bright. The buds in a week or two will commence to burst. The soil hardly needs water for two or three weeks after the bud has burst into growth, for comparatively few roots are formed; until

then keep the tiny plants in a position near the glass, so that they may have plenty of light and sun, and they will soon increase in size and vigour.

The Green-house in Winter.—To obtain flowers at this season there must be a little fire; 50° is the best temperature. There are things that will flower in a lower temperature, but they lack the freshness which a little heat gives. Then, again, with a very low temperature less moisture is wanted, and there is not the same chance of helping with liquid manure. This may be a small matter, but every little helps in bringing efficiency. Here is a list of plants now in flower in one amateur's small house. Chrysanthemums, still very good; Heaths, several kinds; Roman Hyacinths; scarlet Salvias, still presentable, but falling a little; Cyclamens, very bright and good; Chinese Primulas, good also; double white Primulas; Bouvardia King of Scarlets, very bright; Begonia Gloire de Lorraine; Primula obconica; zonal Geraniums, single and double in variety; and Cinerarias in variety from seed. In addition, many other things are coming forward, including Narcissus in variety.



VINE EYE IN POT WITH BUD JUST SHOWING.

NURSERY GARDENS.

NEW CHRYSANTHEMUMS AT SWANLEY.

MESSRS. HENRY CANNELL AND SONS' Chrysanthemums always amply reward the visitor at this season of the year, for there is much that is new and interesting there. The large span-roofed house in which the collection is staged accommodates a very large number of plants, most of them being fine, well grown, bright-looking novelties. If, however, Japanese blooms of large dimensions be not required, then, at least, the admirer of other sections, such as the single flowering or decorative type, has also a great variety of choice, and to these we may on a future occasion more fully refer.

Dealing first with the novelties from Continental sources, we are more particularly interested in the Calvat seedlings, although some of the other French raisers contribute their quota, and in some cases with a fair amount of success. But still here, as in Paris and elsewhere, at the Continental shows M. Calvat, both by the character of his novelties and by his method of exhibiting them, easily ranks first, from the point of view of the cultivator of big show blooms.

Among French novelties at Swanley we specially note Secrétaire Clément, a Japanese incurved, with deeply grooved florets, colour golden orange, inside of florets crimson; Le Peyron, very close in build, a grand Japanese of good form, colour rich deep golden yellow; Nivôse, very narrow grooved florets, a pretty shade of pale canary yellow; Sapho is a bloom of immense size, colour deep rich lilac-rose, very broad florets showing reverse of silver; Alliance is a fine yellow Japanese of good build; Mlle. Berthe Eschenauer, a perfect Japanese, of

carmine-amaranth, with reverse of dull straw; Mme. Alb. Bertrand has long drooping florets, colour pale lilac-mauve, passing to white in the centre.

From various Continental sources there are other noteworthy varieties more or less new, which are in good form this season, such as Mme. J. Perraud, deeply grooved florets, a Japanese, colour creamy white; Vierge Mont-brunoise, a seedling of the Marquis de Pins, and one of his best, having grooved florets twisted and intermingling, colour pure white, slightly tinted; and others.

Colonial novelties are always a feature at Messrs. Cannell's, and are deservedly strong competitors with the French. Among those we saw in good form, and which are of quite recent introduction, Rosy Morn is a deeply-built Japanese, compact in form, colour deep cerise, with reverse straw yellow, the florets grooved and curly at the tips. Beatrice May, a big incurving Japanese, has grooved florets forming a globular flower, colour silvery blush, passing to white.

In Lady Talbot we have another Colonial of perfect form and deep in build, narrow florets, twisted and intermingling, pure soft sulphur-yellow. Very fine is Romance, an incurved flower, something like C. H. Cartis, but deeper in form and rich in tone; Amethyst, lilac-rose-pink, with silvery reverse; Mrs. M. J. Darcy, Japanese, long, drooping florets, colour pure pale yellow; Madge, Japanese, narrow florets, colour pale rosy amaranth, with reverse silvery.

Coming towards the end of our journey round the house we observe the last lot of interesting blooms in a little group in which M. Ph. Méry de Montigny, rather narrow florets, a rich velvety crimson, with golden reverse; Mme. Abel Chatenay, old rose, golden reverse; Enten'e Cordiale, a new Japanese, having medium-sized florets, deep rosy amaranth, reverse silvery pink; Lady Henderson, golden orange, streaked chestnut; Lady Leonard, rich golden bronze, inside brassy crimson, all figure to great advantage, and some of which are evidently destined to hold a prominent place at our shows in the near future.

GARDENING OF THE WEEK.

FLOWER GARDEN.

ASSUMING that a tree and shrub planting is now at a temporary standstill, advantage should be taken to carry out any improvements or alterations contemplated, and to have them completed as far as possible before the busy spring season comes round again with its incessant calls and pressing needs.

WATER GARDENING of late years has deservedly been brought prominently to the front. So many new and improved plants are easily available for the purpose, as well as older ones brought to notice and proved adaptable for the work, and altogether so interesting that wherever lake, stream, or even a sluggish ditch exists, they should be utilised in carrying out this phase of gardening. The happy possessors of natural ponds, lakes, and large expanses of water have the ideal foundations at hand on which to carry out and develop this water gardening to perfection.

NYMPHEAS are now so varied in colour, size, and form, and so hardy and easily grown, that it is necessary only in these cases to dot good clumps promiscuously, but thinly, over the surface to produce lovely effects. Thus disposed they grow vigorously and bloom freely, especially in back waters of lakes where the currents are not strong. Those less fortunate who can only boast of a tiny streamlet, or those even who can only create one by the aid of a pipe connected with a reservoir or with the house or garden supply, will be amply repaid for the labour and expense incurred in making a pond specially for them. I need not here enter into the construction of

LILY PONDS, but would emphasise the desirability of the utmost care in the selection of a site. Choose a depression in the ground or the foot of a slope or some such spot as Dame Nature might reasonably be expected to collect surplus surface water. Avoid artificiality and hard formality. Plants of a sedge-like nature are very appropriate for furnishing the surroundings, and there is ample choice for the most fastidious, from the dwarf Rushes, Grasses, Montretias, Iir, &c., up to the Bul-rushes, Phormiums, and the giant Bamboos. Either the



VINE EYE.

inlet or outlet of the pond, or both, can be formed into a bog, if space and environment admit, and add to the interest of the water-garden.

SHRUBBERIES.—All gross hoots should be trimmed in to preserve an even balance, and any that may have been broken or damaged during lifting or other operations should be cut back. Avoid digging among the roots, but, in preference, collect and spread fallen leaves and other litter over the roots, sprinkling with a little soil to prevent their disturbance by wind. Any vacant spaces free from roots among and between the shrubs should be deeply dug, heavily manured, and prepared for the reception of whatever plants or bulbs it is contemplated to plant later. Also dig deeply all vacant beds and borders, dressing liberally with decayed manure, which should be buried at least a split deep for most plants.

JOHN ROBERTS.

The Gardens, Tan-y-bwlch, North Wales.

INDOOR GARDEN.

HYDRANGEA PANICULATA GRANDIFLORA.—Pot the plants and prune back the young growths to within 2 inches of the old wood. Early in January is soon enough to introduce the first batch into heat. The house should not be too warm, as they do not like hard forcing. Thin out the young growths when 1 inch or so in length, leaving two on each growth.

BEGONIA GLOIRE DE LORRAINE.—Propagation of this for an early batch should be attended to. Cuttings can be obtained from the plants cut back as advised in a previous calendar. Fully-developed leaves may be taken off and inserted in shallow boxes, filled with leaf-mould or cocoanut fibre and sand in equal proportions. Numerous varieties of this plant continue to appear, but so far I have seen nothing to equal the plant first distributed by Messrs. Lemoine. Turnford Hall is the best white.

ROSE HOUSE.—Start this house gradually, commencing with a night temperature of 45° to 50° Fahr., with the usual rise by day. Give very little warmth the young shoots soon commence to push. Long rods likely to make growth near the top at the expense of the bottom should be untied and bent round for a time. Prune all the plants in pots except those newly potted, and place them under cover.

HERBACEOUS CALCEOLARIAS.—Many of these are ready for the flowering pots. The larger plants can be given 8-inch or 9-inch, and the smaller 6-inch and 7-inch pots. Remove any decayed leaves, fumigate periodically with XE All Vapouriser. Use only sufficient heat to keep out frost. Give abundance of air during mild weather.

VIOLETS.—The recent mild weather has permitted the lights being removed altogether on numerous occasions. Remove decayed leaves. Little water is necessary now, especially in unheated frames. Take care not to allow the soil near the pipes in heated frames to become dry.

ACACIAS.—Nearly all these are yellow, but what colour is more pleasing than yellow in winter? *A. obliqua* and *A. platytera* are already in flower. Introduce a few plants of *A. Drummondii* and *A. armata* into a warm greenhouse to bring them into flower in advance of the general batch. Help the plants with an occasional dose of soot water and guano.

BULBS.—Place Hyacinths, Tulips, and Narcissus in the forcing-pit or warm house at convenient intervals to meet requirements. There is nothing to beat Duc van Thol Tulips for early flowering, following with Pottelbakkers. A temperature of 50° to 55° Fahr. is ample for Narcissus; gloriosa and Grand Monarque are two of the best to succeed the Paper-whites. Roman Hyacinths are flowering now without forcing in an ordinary greenhouse.

SEED ORDERS.—Catalogues from various nursery and seedsmen are coming to hand. These can be looked through carefully. In many catalogues very useful hints for cultivation are given. Consult your notes of plants worth growing which you do not possess, made when visiting shows, nurseries, or private gardens.

Royal Botanic Gardens, Kew.

A. OSBORN.

ORCHIDS.

DENDROBIUM WARDIANUM.—In one of my former calendars (June 3) I gave several hints respecting the culture of *Dendrobium wardianum*. The plants which have proved the best and most satisfactory as regards flowering are those which have been suspended close to the roof glass of a house the temperature of which at all times is only a few degrees warmer than that of the *Odontoglossum* house and the atmosphere rather dry. During the growing season the plants were subjected to plenty of light without direct sunshine, air being admitted through the top ventilators on all favourable occasions, while the bottom ventilators have always been wide open both by day and by night. For several months these plants have been at rest, and in this comparatively cool temperature it has not been necessary to afford them nearly so much water to maintain the plumpness of the pseudo-bulbs as for those growing in a warmer house. They have for several weeks shown flower-buds at the extreme end nodes of the bulbs, and gradually the back nodes are also showing well for flower. It appears to make no difference as to what temperature these plants are grown in, but they all commence to push up new breaks from the base of the current season's flowering growths as the flower-buds are advancing; therefore water at the root must be very carefully applied, and at comparatively long intervals of time, or these growths that are now visible will continue to grow and prevent the flower-buds from coming to perfection. If the plants are kept in a moderately dry condition the new breaks will remain almost stationary till the spring, when they will develop vigorously.

The pretty hybrid *D. wardianum-japonicum* also appears to thrive best under cool treatment, but the other hybrids which have *D. wardianum* as one of their parents, as *D.*

Aspasia, *D. aureo-wardianum*, *D. Clio*, *D. micans*, *D. Juno*, *D. Euterpe*, *D. Euryclea*, *D. Bryan*, and *D. Alcippe*, succeed best when subjected to the warmth of the East Indian house or plant stove. As nearly all of these hybrids have the same tendency to produce growth in conjunction with the flower-buds, they should be afforded water as advised for the original species.

It is now advisable to look over all the other *Dendrobiums* that are in their resting quarters, and those plants that are prominently showing their flower-buds may be brought into a house where the night temperature is about 55°, there to remain till the bloom-buds are about to open, when they may be removed to a rather warmer atmosphere, choosing a light position so as to bring their flowers to perfection. Up to the present we have removed the earliest plants of *D. Clio*, *D. Ainsworthii*, *D. Juno*, *D. splendidissimum grandiflorum*, *D. burfordense*, *D. Sybil*, *D. rubens grandiflorum*, and several distinct varieties of *D. nobile*. Water to these plants must be afforded with discretion. If the compost is made too wet the plants will grow away prematurely, and a large number of the old roots will decay.

Atmospheric moisture in moderation is useful, and a slight syringing overhead with tepid soft water on warm, sunny days will assist the flowers to open more freely. A good show of flowers may be obtained for several months by placing those plants that ripened early into a cool house, bringing them into gentle warmth as their flower-buds appear. Such species as *D. Parishii*, *D. secundum*, *D. dalhousianum*, *D. Bensoniae*, *D. albo-sanguineum*, *D. crepidatum*, *D. cretaceum*, *D. crystallinum*, *D. primum*, *D. Pierardii*, *D. lituidorum*, *D. transparens*, *D. superbum* (macrophyllum), and its varieties *Burkei*, *Huttonii*, and *Deareii* should be kept in the Cattleya or the coolest part of the East Indian house during their season of rest, and all should be kept as dry as possible at the root, affording them more warmth and moisture when the flower-buds show.

The rare *D. sanguinolentum* grows best with the Mexican *Laelias*. The pretty white *D. crumenatum* should always be in the warmest house, while such species as *D. subclausum*, *D. g'oneratum*, *D. infundibulum*, *D. jamesianum*, *D. watsonianum*, and *D. tetragonum* prefer the cool house in summer, and during winter the coolest part of the intermediate house. They should be kept only slightly moist when at rest.

Burford Gardens, Dorking.

W. H. WHITE.

KITCHEN GARDEN.

STORED ROOTS.—All these require looking over in order to remove all decayed ones. The seed Potatoes need similar attention, for if one unsound tuber is among the others, be it decayed or diseased, the infection will spread rapidly. Potatoes stored for seed must receive careful handling, so that none of the eyes may be damaged; in fact, they will be all the better if spread out somewhat to allow of their being lifted separately after they have commenced to sprout later on. Potatoes, unless wanted for planting in frames, must be kept very cool, but safe from frost. Onions are keeping well this season; Trebons, Ailsa Craig, and others never kept better, but at the same time they require to be looked over occasionally. Though some may not be sufficiently bad to be thrown away, should they show any evidence of decay at the neck they must be kept separate from the sound bulbs and used immediately. Beetroot and Carrots should also be examined, and any root showing symptoms of decay should be immediately removed.

PARSLEY ON BORDERS has yielded abundant supplies, but to prolong the supply some shelter is necessary, such as old frames, hard-lights, or Spruce boughs. During open weather a liberal dusting of soot is a capital stimulant, only some precaution must be taken to withhold the soot from a few plants for present use.

WINTER SPINACH will also benefit greatly by a dose of soot to keep the plants growing. The ground between the rows of Spinach is apt to become caked and hard, caused by heavy rains, &c. At the first opportunity have it broken up, either with the Dutch hoe or the points of the digging-fork. The latter tool is best at this season.

GENERAL WORK.—Very little can be done at this time amongst outdoor green crops beyond keeping such subjects as Brussels Sprouts, Curly Greens, and Broccoli free from decayed leaves, which, if allowed to remain, emit a disagreeable smell. They should, therefore, be removed to some plot of ground that is being dug or trenched, where they can be buried deep enough to be out of reach of the digging-fork when planting time arrives. In some soils such decayed foliage becomes invisible in a short space of time, but in others the Brassica leaves lie a long time before they decay, therefore it is necessary to place them beyond the reach of digging-fork or spade. I find that by burying all such refuse on garden plots the depth of soil is increased, and in a great measure the crops are assisted to pass through a spell of dry weather in the summer months.

THE RUBBISH HEAP.—Frequently the rubbish heap consists of a mixture of weeds, stones, machine mowings, &c., all put down in a hurry when work was pressing. Let the whole be turned over and put into three separate heaps—decomposed in one heap, partly decomposed in another, and the stony material in a third. The decomposed heap may be mixed with lime at once; the partly decomposed will be in good order for being similarly treated next spring. The stony heap will make excellent material for filling up drains, especially on ground that is heavy; there the stones greatly aid the drawing off of water. Branches, twigs, prunings, &c., that may have collected should be burned, and the ashes collected and stored for future use. The present is a very good time to have

THE GARDEN DRAINS examined. Firstly make sure that all their outlets are clear. Make new drains on damp plots, thus preventing the formation of stagnant water and improving the fertility and value of the ground. Good drainage in all cases amply repays the cultivator.

J. JEFFREY.

The Gardens, St. Mary's Isle, Kirkcudbright.

FRUIT GARDEN.

YOUNG VINES.—The pruning and cleaning of young Vines may now be done. The cutting back of the canes will depend to a great extent on their strength. Should there be any tendency towards weakness, 1 foot, or at most 18 inches, will be ample to leave for one season. By so doing next year's growth will be much stronger, and there will be a greater likelihood of the rods becoming stouter and more substantial in after years. Strong, well-ripened canes may be left 2 feet 6 inches or 3 feet. There should be very little cleaning necessary, but it will be advisable to rub off any loose bark and scrub the Vines with a solution of soft soap and sulphur, to dislodge any red spider which may be lurking about. Scraping should be avoided, as it is detrimental to the rods swelling freely. It is only recommended where the Vines are badly infested with mealy bug. Vines which have made two season's growth and are considered strong enough to carry two or three bunches next season will benefit by the addition of a little new soil to the border. About 18 inches or 2 feet will be ample at one time. Some good sound turves of rich loam should have been placed under cover, so that it will be in workable condition when required. Use plenty of wood ashes and brick rubble among the soil, adding Bentley's Vine Border Compound in quantity, according to the nature of the soil. A few inches of the old border should be carefully forked out as the work of building the new border proceeds. This will assist the roots to enter the new soil more freely. Make the border as firm as possible.

FIGS.—The earliest permanent trees must be made ready for starting. Pruning requires care and thought. The trees should be furnished from top to bottom with well-matured fruiting wood. A few old branches which are becoming bare at their bases should be discarded every year to make room for younger wood, or the trees will eventually become bare of growth at the centre. Should the wood be unduly strong, the trees must be partly lifted and the large fleshy roots cut back. The cause may be that the roots have too large a run in a rich border. If this is so, they should be further restricted by building walls around them nearer the trees. Mix plenty of old brick rubble with the soil when filling in, and make quite firm. Firm borders well filled with roots are essential to successful culture. After washing the house the trees should be thoroughly washed with strong soft soapy water. Mealy bug and red spider are the worst enemies of the Fig, and unless an effort is made to clear them while the trees are dormant they will cause a lot of trouble later on. The pot trees which were started last month may be given a higher temperature; 55° at night, with a rise to 60° or 65° during the day will be suitable. The pots may now be plunged in a moderately warm bed of fermenting material. Careful watering and strict attention to temperatures are the chief points to consider till growth becomes active.

E. HARRISS.

Fruit Department, Royal Gardens, Windsor.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, W.C. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

Legal Points.—We are prepared to answer questions of law which have anything to do with the subject of gardening and forestry. The questions should be as clear and explicit as possible, so that there can be no doubt as to the point of the question. Answers will be found in a separate column headed "Legal Points."

FLOWER GARDEN.

PLANTS IN ROCKERY (Rock).—Most of the plants you mention will do very well on the rockery facing south-west. It is just the place for *Acantholimon*, *Aethionemas*, *Lewisiae*, and many of the crusted *Saxifragas*. Of the latter, *S. kolenatiana*, *S. aizoon* vars., and *S. bursieriana* will stand a good bit of sun, providing that there

is moisture in the soil which the roots can reach. For preference, *Saxifraga guthrieana*, *S. media*, and *S. valdensis* like a little more shade, and grow better under such conditions, but it is possible to grow them on a sunny exposure. If it is found that the sun is too hot and is turning them brown, it would be as well to shade during the hottest part of the day. This can be done by means of small branches of Box or Yew stuck upright between the plants. These will give sufficient shade and are easily placed in position or removed. To keep the ground cool and moist, flat stones scattered about between the plants are of great assistance. If the alpine are turning brown it is a sign that they are not happy under those conditions, and will gradually get worse, eventually going off altogether. It is, therefore, advisable to move them to positions more suitable.

CLIMBERS (Clossy).—We are afraid it would be useless to try and grow Sweetbriars or monthly Roses against the fence under the Pine trees. While they might grow well they would not flower satisfactorily. We believe you would find Ivy really the most suitable for covering the fence. If, however, you do not wish to plant Ivy, such plants as Winter Sweet (*Chimonanthus fragrans*), *Forsythia suspensa*, winter and summer-flowering Jasmine, *Pyrus japonica*, and *Prunus triloba*, all beautiful flowering shrubs, would be excellent for the purpose. With reference to the flowering shrubs for the mixed border, of those you mention *Pyrus Malus floribunda* and *Prunus pseudocerasus* would be the best. In addition to these we might mention *Prunus pissardi*, beautiful in flower, and with bronzy red foliage; Lilacs, *Prunus persica*, Laburnum, and Almond. Some of the strong-growing Roses when trained up tall pillars make most handsome objects in the mixed border, and relieve the monotony of outline.

PLANTING A SMALL GARDEN (Amateur).—We presume that your garden is not overshadowed by trees or houses. In that case your border F will be exposed to abundance of light, a position in which many plants will thrive better than on a hot, sunny border. The following climbers would be suitable for the fence: Roses, Honeysuckles (early and late Dutch), Clematis, *Ceanothus*, and *Kerria japonica*. The border F being so narrow will not need very many plants. If you care for British or hardy Ferns a corner in this shady border ought to be reserved for them. Pæonies are amongst the most gorgeous of summer flowers. *Phlox decussata*, *Galega officinalis*, *Chrysanthemums*, Pansies, Violas, and Violets would be at home in such a border. You might try Lavender, Rosemary, Thyme, Sage, Mint, &c. The position of border E would suit the Carnation well. Border G should be planted with Tea and Hybrid Tea Roses, with bulbs in between. Plant standard Roses 9 feet apart in all three borders. As regards the quarters A, B, C, and D, make good sized beds for Roses. A short selection of Roses:—Climbers: *Alister Stella Gray*, *Aimée Vibert*, Climbing Caroline Testout, Dorothy Perkins, and William Allen Richardson. Teas and Hybrid Teas: *Augustine Guinoisseau*, Captain Christy, Caroline Testout, Dr. Grill, Georges Nabonnand, Grace Darling, Gräfin von Teplitz, Kaiserin Augusta Victoria, La France, and Liberty. Hybrid Perpetuals: Alfred Colomb, Captain Hayward, Clio, Fisher Holmes, Helen Keller, Frau Karl Druschki, Mme. Gabriel Luizet, Marie Baumann, Mrs. John Laing, Mrs. R. G. Shermann Crawford, and Ulrich Brunner.

B. T. F.—*Pyrethrum roseum* hybridum is a good hardy perennial, and will thrive for some years without any special attention if it is planted in good strong soil in the first place. After a time, however, the soil gets exhausted, and it will not flower so freely. A good top-dressing of well-rotted manure applied annually will be of great assistance. After several years it would be advisable to lift the plant and divide it. The best time for this operation would be in the spring. The safest method is to take the plants up, shake off all the soil, and part into small pieces, which should be potted up and kept in a cold frame

for a week or two. When established they may be planted out in their permanent positions. A good rich loam is most suitable for this *Pyrethrum*, and plenty of manure should be dug in before planting.

Miss Hardcastle.—It is probable that the *Ampelopsis* would not cling satisfactorily to the corrugated iron. We have tried it against a smooth wooden fence and it refused to cling. Plants that would cover the shed quickly are *Clematis flammula*, *C. Vitalba*, *Polygonum baldschuanicum*, Honeysuckle, or Ivy. The *Polygonum* is a very rampant grower, and soon covers large surfaces with its slender growths. In the month of July it bears a profusion of small whitish flowers. It would be as well to encourage any climber you might plant by covering the corrugated iron with wire netting or a framework of rough wood.

CLEMATIS (H. C. Gardiner).—The treatment given to the *Clematis indivisa lobata* cannot be improved upon, and should certainly result in the production of blossoms. There is still the possibility of its flowering next spring, but if it is then again a failure we should advise you, as soon as you are certain on that point, if there are any old and exhausted shoots to cut them out. Then repot if the roots are in good condition; a pot 8 inches in diameter will not be too large. A suitable compost may be made up of two parts good loam to one part of well-decayed leaf-mould, and a liberal sprinkling of sand. The pot must, of course, be clean and well drained, and in potting the soil should be kept moderately firm. Then encourage free growth by keeping the structure in which the plant is growing rather closer than usual till the roots are in active operation. Water very carefully, and check mildew and insects.

TREES AND SHRUBS.

FLOWERING CURRANTS (Wareham).—The Flowering Currants (*Ribes*) flourish in very poor soil and cold situations, so they may be ranked among the easiest of all shrubs to grow. The one you commonly see in gardens is *Ribes sanguineum*, with pendulous bunches of red flowers; but there are several finely coloured varieties of the type which are better worth planting. *Atrosanguineum* is one of the best; it has larger and more richly coloured flowers. *Carneum* has pale rose or pink flowers, and albidum has nearly white ones. The most beautiful of all the Flowering Currants is *Ribes aureum*, which bears drooping racemes of yellow flowers, while in autumn the leaves take on a rich colour. *R. gordonianum*, a hybrid between *R. aureum* and *R. sanguineum*, is also worth including.

B. T. F.—*Spiræas* should be lifted and potted for flowering in the cool greenhouse soon after they are dormant. A sheltered position out of doors is very suitable for them when potted, as it is better for them to become established before they are taken into the greenhouse. Both the *Spiræas* and *Hellebores* may be flowered two successive years in the same pots, if care be taken to assist them in making their growth after the first flowering, which is done in this way: Directly the blossoms are over they must be cut off, and the plants assisted with manure water. They must be kept in the greenhouse till all danger from frosts and cold winds is past, when they may be plunged out of doors. Water well during summer. By attention to these details the *Spiræas* will flower fairly well, but the display is hardly likely to equal that from freshly-imported clumps.

ROSE GARDEN.

CHAINS OR ROPES FOR RAMBLER ROSES (Subscriber).—There can be no question as to the durability of light chains for these Roses, but the rope that is sold for the purpose is much cheaper. Providing the posts are not very far apart, say, from 9 feet to 10 feet, we should advocate rope being used. The growths of the Roses meeting each way soon entwine with each other and form a rope in themselves. An economical plan is to use twisted galvanised wire about the thickness of a lead pencil, and then twine some of the rope around it.

ROSE WITH GREEN CENTRES (Tenby).—We should say the plants are growing too luxuriantly. Try the plan of partially lifting them. This could be done at once. Put a long spade in the ground and gently raise the roots, doing this all round the plants. Then tread the soil again to settle the roots. If it were not for the fact that you are living in a part of the country where spring frosts do not injure the young growths, or at least we assume this is the case, we should have thought the malformed buds were injured in this way. This Rose is not one we care much about. There is such a rampant vigour about it and often very little blossom. We have found

Pink Rover a much better Rose. If you were to cut the plants right down to the ground you could bud another good sort into the young wood next August, and this would quickly establish itself. If you want a beautiful pink climber try Climbing Caroline Testout, or a deep pink sort is well represented in Climbing Belle Siebrecht. Lady Waterlow is an exquisite climber, and one that all should plant.

ROSE SOLEIL D'OR (E. S. H.).—This beautiful Rose should not be treated as an ordinary bush, but instead allow it to grow almost as an unpruned shrub. If possible to train it loosely to a pillar, this would be a good plan, or, failing that, then near a fence or low wall. Plant it slightly away from the wall or fence so that it may have the shelter, and yet be able to grow as naturally as a shrub. It is perfectly hardy, but the blossoms being so very double need the utmost warmth and dryness of atmosphere to expand freely. The delicious odour of ripe fruit which the foliage and blossom impart is not the least valuable trait of the Rose. As a standard it is excellent. By a careful system of pruning, to an outward eye it will develop a splendid head. Some of the oldest growths should be cut quite out when the bush gets dense; in fact, all such Roses require this to be done at intervals.

Beginner.—The best varieties for you to plant at first are such free-growing, free-flowering sorts as Caroline Testout, Viscountess Folkestone, Augustine Guinoisseau, Ulrich Brunner, Frau Karl Druschki, Grace Darling, La France, Gräfin von Teplitz, Clio, and Gustave Regis.

B. K.—Rose Climbing Souvenir de la Malmaison has several times been complained of lately on account of its tendency to produce flowers with green centres. It is apt to make very luxuriant growth, and then to flower unsatisfactorily. Try Climbing Caroline Testout.

Sidmouth.—In your greenhouse you ought to be able to grow Maëchal Niel, Fortune's Yellow, and Climbing Niphetos, three very beautiful Roses. When established the way to prune them is after they have finished flowering to cut hard back the shoots so as to encourage strong, young growths for next year's flowering. In autumn shorten the ends of the young growths if they are weak.

THE GREENHOUSE.

GROWING BULBS (Amateur).—Provided your Hyacinths, Tulips, and Narcissi were early potted, and in this way prepared for the flowering stage, there is no reason why you may not with a certain amount of success grow them in the way you desire. Bulbs that were potted early in October, and placed in boxes in the open garden—the pots meanwhile covered with sand, ashes, or Cocoanut fibre refuse to 3 inches deep—would, by the end of November, be sufficiently rooted to take indoors, and may then be further assisted if you place an inverted flower-pot over the growing bulbs for a time. It is the dry, arid conditions of the room you describe that would militate against success if you placed the bulbs therein as soon as potted. A well-rooted bulb can endure the changes of temperature better than a bulb freshly potted. It is because of the evil effects of this drying influence that Hyacinths in glasses and bulbs in prepared fibre do better than plants in soil in pots.

THE SILVER TREE (Hugo Muller).—The cultural requirements of the Cape Silver Tree (*Leucadendron argenteum*) are more exacting than those needed by many other plants, especially when young. You, undoubtedly, made a mistake in allowing your seedling plants to attain a height of 4 inches to 5 inches before potting them singly, as the risk would be considerably lessened if the young plants had been potted as soon as the first rough leaf (apart from the cotyledons) was fully developed. Pots 5 inches in diameter are very suitable for sowing the seeds, and care must be taken that they are quite clean. After drainage, fill to within half an inch of the rim with a sifted compost made up of two parts peat to one part each of loam and silver sand. Then on it sow the seeds, and cover with a little fine soil of the same kind as before. The best place for the seed is a rather warm greenhouse, with a winter temperature of 50° to 60°.

When one leaf is fully developed the young plants must be potted off singly. When rooted a good light position in the greenhouse will suit them well. Even then considerable care is required in watering and other matters; in fact, a treatment similar to that needed for Cape Heaths is very suitable to the *Leucadendron*. An excess of moisture at the roots is injurious, while drought is equally bad. As the plant develops, the treatment required may be summed up in ample drainage, a free supply of water at the roots during the summer, and a compost largely composed of peat and sand with the addition of a little loam. The Silver Tree may be plunged outside in the summer.

Hopeful.—The bulbs of the *Tuberose* are quite useless after flowering, and may be thrown away. They will not flower in a satisfactory manner the second year.

T. J. W..—Get "The Book of Greenhouse Flowers," published by John Lane, Vigo Street, W., price 2s. 6d. This will doubtless give you all the information you require.

S. T. T..—Why not try *Solanum capsicastrum*. This is a most beautiful berried plant, and one that is most useful for the greenhouse. *Rivina humilis*, with red berries, and *Callicarpa purpurea*, with purple berries, are two other plants that can be strongly recommended.

Novice.—Some of the best varieties of winter-flowering Carnations are Mrs. Lawson and Nelson Fisher (bright cerise), White Mrs. Lawson, Eucharistress (pink), W. Robinson (scarlet), G. H. Crane (scarlet), Fair Maid (pink), General Kaur (scarlet), Harlowarden (crimson), and Harry Fenn (crimson).

FRUIT GARDEN.

VINE ROOTS DECAYED (*S. J. Stone*).—The Vine roots are certainly very much decayed, but there is nothing to show what has been the cause of the injury. I expect it will be found among the fibrous parts of the roots. If you would send a piece of the younger roots with some of the fibrous roots attached I will try and discover the cause. The fungus which is infesting the bed is the mycelium or spawn of one of the higher fungi (those which are more or less like the Mushroom in form), but to what species or genus it belongs it is impossible to say. If you find any Toadstools growing from the spawn and would send some up, I could probably name them for you. The spawn will not injure the Vines in any way.—*G. S. S.*

TRAINING PEACH TREES (*South-West Surrey*). We think that the advantage of one form of training over another is more apparent than real. Some points may be advanced in favour of each. On the whole, we are inclined to favour the wired wall rather than the old-fashioned nailing process. For one thing, it considerably reduces the cost of labour in training. It also permits of a freer circulation of air amongst the foliage and young growths of the trees, as it does also round the fruit, and this has an important effect in improving the quality, flavour, and colour of the fruit at the time it is ripening. The wires should not be more than $1\frac{1}{2}$ inches from the wall, or much of the heat from its surface will be sacrificed. Care must be taken not to bruise the shoots by tying them too tight or frost might injure them. Apart from this there is no danger of the shoots being killed by frost.

RASPBERRY FAILING (*W. W. K.*).—We think that probably your Raspberry canes were very weak when planted. Probably the canes, if your soil is at all dry, suffered from drought early in the growing season; if so, that would account for the failure. You certainly did quite right by planting as you did, also in cutting down in March; but we think it would have been well to have cut a little earlier, before the plants had made any growth at all. The plant would have been less checked, as the growth of the Raspberry is very early. Last season Raspberry canes, recently planted, suffered much from drought, and in all cases it is a good plan to mulch the soil with some manure. Your remedy now is to remove any very weak shoots as they appear, and only allow two or three of the strong ones to mature. Give food freely in the shape of liquid manure and water in dry weather. The

land requires to be deeply dug, well manured, and should not have grown Raspberries for some time.

FRUIT TREES INFESTED (*Peach Wash*).—You will find Price's Gishurst Compound a most effectual dressing for the Peach and Nectarine trees under glass, and Vines, and Figs. It may be procured in small, medium, and large boxes from any horticultural sundriesman at a small cost. It is a safe and yet effective preparation, and may be used, as directed on the boxes, while the trees are at rest. In bad cases we would advise painting the trees. Make a paint of the Gishurst Compound by adding a little pounded clay, sulphur, and lime, all well worked together. Then paint all the old wood, bark, and affected parts of the trees. By painting, any portion missed in the syringing is covered. Most of our best fruit-growers always paint their trees under glass in the winter, even should they be quite clean. Once mealy bug has got hold of the trees painting yearly is a necessity.

Ignorant.—You may plant Gooseberries now if the weather keeps mild and open. October and November are the best months in which to plant. Take care to make a hole large enough to receive the roots when these are spread out. Make the soil firm about the roots. Bush plants in the open are planted in rows 6 feet apart, with a distance of about 5 feet between each plant in the row. The character of the different varieties should be considered when planting. For instance, early and late sorts, or strong growing and weak growing varieties, must not be placed together.

William Merton.—Plant the Nut trees 10 feet apart. This is a good average distance to recommend. Sometimes they are planted 15 feet apart, and for strong growing varieties in exceptionally good soil this is none too much. When the form of the trees has been decided upon cut away strong side shoots at pruning time, but leave the small twiggy wood, as this produces the catkins and fruits. Cut back the leading shoots when no extension of the tree is necessary, as these will then form spurs or fruit-bearing shoots. It is important to keep Nut bushes open in the centre.

X.—Thirty years ago the horizontal method of training Pear trees was the most popular and the most generally practised. Even now, for those who may have a wall 10 feet to 12 feet high and plenty of room for lateral spread of branches, and who do not mind waiting a few more years for returns in the way of good crops, we still think the horizontal form is the best. Its natural habit of growth lends itself well to this form of training, and the trees when they become old and of large dimensions make finer specimens than fan-trained trees. But for walls of lower height the fan-trained tree, we think, is decidedly the most profitable. It comes into bearing quicker, fills the wall space in less time, and, moreover, the trees may be planted a little closer together, thus giving the slight advantage of having an extra tree or two on the same wall space.

KITCHEN GARDEN.

WATERLOGGED SOIL (*Suburban*).—A low-lying part of a garden that is in the winter waterlogged will be of very little use for summer cropping, as water in that case washes all the fertility out of the soil. If you could have carted in a quantity of street sweepings and mixed with the soil to raise it materially out of the water level, then you might grow any summer vegetables on it, such as Peas, Beans, Cauliflowers, or Cabbages. Unless thus treated crops can hardly be otherwise than poor.

CAULIFLOWER (*Anxious*).—The season of the Cauliflower is from the beginning of June until Christmas. A sowing of a dwarf variety, such as Snowball or Early Erfurt, in January in warmth will give good plants for planting out on a warm border in April and producing heads in June. When the seedling plants are about 3 inches high they should be dibbled thinly into shallow boxes filled with leafy soil, and when strong enough to harden will transplant outdoors with good masses of soil and roots. These dwarf sorts may be planted in rows 18 inches apart and be 12 inches apart in the rows.

Beginner.—Chicory is a deep-growing, flesh-rooted plant similar to the Parsnip. The leaves closely resemble those of the Dandelion. In the winter the roots may be lifted as needed, or in bulk and stored in dry sand in a cool shed; then if some are placed in a cellar, or even in a cool box, with soil about them, and covered up to exclude light, the crowns will send up strong growth like Seakale. When blanched it is tender and mild, making a capital salad, or it may be cooked like Seakale.

W. W. T..—You should sow seed of Capsicums and Chiles in March or April, thinly in shallow pans placed in a gentle heat. Later on move the plants singly into small pots, and, finally, into those of 6 inches diameter, growing them in a frame or greenhouse.

Ignorant.—Of white dwarf varieties of Celery, Dwarf White, Incomparable, White Gem, and Sandringham are good sorts, while of coloured ones you should grow Dwarf Red and Standard Bearer. Of late white sorts, Grove White, Giant White, and Ivory White are some of the best; and of coloured sorts, Sulham Pink, Major Clarke's Red, and Manchester Red.

MISCELLANEOUS.

Closely.—There is no reason why you should not grow other plants in the same border as the Lily of the Valley, but it is better not to mix anything directly with them, as the Lily of the Valley, being of such a close-rooting nature, is apt to starve any immediate associates. They can be moved without risk at this season, as they have not yet commenced to grow. You can, if it seems advisable, plant them in two or three groups, in which case you have a great choice of herbaceous subjects to associate with them, say *Lilium auratum*, *tigrinum*, and *apescium*, in their several varieties; or a selection of Phloxes would commend themselves—in fact, anything of not too aggressive nature may be used. For the front, low-growing subjects such as the Tufted Pansies, which flower for such a lengthened period, may be employed.

Closely.—There is no objection to a quantity of Pine Needles in the rubbish heap provided, as you say, two years are allowed for decay. Turn the heap over occasionally. Potato parings may be thrown on the heap, and kitchen slops of all kinds, particularly those of a soapy nature, are very beneficial, as they contain a good deal of fertilising qualities. When turning over the rubbish heap a sprinkling of lime will serve to destroy any insects. Just before using a sprinkling of guano may be mixed with the rubbish, but for light gravelly soils natural manure is much to be preferred. It would be very much better if you could mix about one-fourth of cow manure with the contents of your rubbish heap, say, three months before using, and turn it at least twice in the interval. For dry, hot soils there is nothing as good as cow manure.

NAMES OF PLANTS.—*Ostro*.—An E is probably; it will require the same treatment as a *Dendrobium*.—*T. R. C.*—*Chlorophytum elatum*.—*Camb.*—Adam's Needle (*Yucca gloriosa*).

NAMES OF FRUIT.—*Mackinnon, Aberdeen*.—1, Tower of Glamis; 2, Stamford Pippin; 3, Lemon Pippin; 4, Hambleton Deux Ans; 5, Peasegood's Nonsuch; 7, Keewick Codlin.

T. O'Callaghan, Colshill.—Not recognised; probably a local variety, and a very good one.

SOCIETIES.

MILLOM HORTICULTURAL SOCIETY.

At the annual meeting held on the 28th ult., the secretary presented a balance-sheet which showed that after paying £44 5s. 6d. prize money, in addition to other expenses of the show, the society's balance was reduced from £19 4s. 11d. to £11 5s. 7d. The president and vice-presidents were re-elected, and others added to the list. The Rev. I. G. Farras was appointed chairman of committee and treasurer, and Mr. Fred Hodgson accepted the office of secretary, vacant through the late secretary having left the district.

READING & DISTRICT GARDENERS' ASSOCIATION. TABLE DECORATIONS AND FLORAL DECORATIVE COMPETITIONS.

THESE were the means of attracting the largest attendance of members gathered together at one meeting, about 150 being present. The meeting was held in the Abbey Hall, the first portion was devoted to the competitions, viz., vase of *Chrysanthemums* arranged for effect, and basket of flowers arranged for effect, the work to be done in the room. Baskets and vases were provided by the society, and head gardeners or foremen were not allowed to compete. The judges (Messrs. Townsend, Foster, and Harris) made their awards as follows: Vase—First, Mr. A. Hoskins, Park Place Gardens, Henley-on-Thames; second, Mr. J. Busby, Bear Wood Gardens, Wokingham. Basket—First, Mr. H. Wovles, Bear Wood Gardens; second, Mr. J. Busby. Following the competitions Mr. E. Winsor, assisted by Mr. T. J. Powell, gave practical demonstrations in the decorating of dinner-tables. Four tables were decorated, for sixteen persons, twelve persons, eight persons, and four persons. The former was done by Mr. Powell, and the others by Mr. Winsor. The latter used *Chrysanthemums*, *Grapes*, *Apples*, and *Pears*, on the twelve table, *Begonia Gloire de Lorraine* and *Ivy-leaf Geraniums* on the eight, and *Helichrysum* and *grasses* on the four. Without doubt the *Begonia* and *Geranium* gave by far the prettiest effect. Mr. Powell created a splendid effect by using an umbrella frame for the centre-piece and wire arches for the end with *Bougainvilleas*. Many suggestions were made by the decorators during the evening, and questions and suggestions were asked and made by Messrs. Exler, Judd, Hinton, Foster, Townsend, Neve, &c. The tables were splendidly furnished with cutlery, glass, and other necessities by Mr. Phillips, caterer, and with candelabras, silver vases, fruit stands, &c., by Messrs. Bracher and Sydenham, silversmiths to His Majesty the King. Both of the firms named provided the material free of all cost. A hearty vote of thanks was

accorded to all those who had in any way attributed to the success of the meeting, that will be remembered for a long time to come by all those who were fortunate enough to be present. It may be mentioned that the galleries were reserved for the use of the lady friends of the members. Several new members were elected.

NATIONAL POTATO SOCIETY.

THE general annual meeting of the above society was held on the 7th inst. in the Prince's Saloon at the Agricultural Hall, Islington, London, N., Mr. G. Gordon, V.M.H., in the chair, and was largely attended.

The secretary, Mr. W. P. Wright, read the minutes of the previous meeting and the annual report for 1905. The balance sheet showed that the society had a balance on the year's working of £31 11s. Mr. A. D. Hall moved, and Mr. Strawson seconded, the adoption of the report. Mr. Davie enquired about the die and medals which were charged for on the balance sheet. The secretary explained that certain medals had been awarded to amateurs' or cottagers' societies. The resolution was carried unanimously.

The secretary brought up the question of unpaid subscriptions, asking the meeting to decide when the defaulters should cease to become members. After some discussion Mr. Hall moved that such members be allowed a year's grace. This was seconded by Mr. Fred Pickering, and carried unanimously.

Mr. W. Cuthbertson proposed that the officers, committee, and board of arbitration as given in the schedule be re-elected *en bloc*. This was seconded by Mr. F. G. Crampton, and carried unanimously.

On the motion of Mr. Davie, Mr. J. Gray of Osborne Street, Glasgow, was re-elected to the board of arbitration, the members of which were given votes on the general committee.

Messrs. W. Cuthbertson and W. J. Malden were unanimously elected as joint honorary auditors.

Mr. A. D. Hall opened a discussion respecting the society's trials during 1906. He suggested that the society should enter into an agreement with the Cambridge University agricultural department. The secretary stated that he had seen Professor Middleton on the subject, and this gentleman had given an encouraging reply. Mr. G. Massey, Mr. T. J. Baydes, C.C., Mr. R. W. Green, and Mr. T. A. Scarlett supported the scheme. Several members spoke very highly of the Cambridge trials of 1905.

Mr. T. J. Baydes suggested that the various county councils might take the matter up. Mr. Scarlett moved that the department be approached formally; this was seconded by Mr. George Massey, who stated that his county council were doing nothing whatever in the way of experiments. Carried unanimously.

The secretary moved that the maximum charge for testing any one variety be 10s.; this was seconded by Mr. Cuthbertson and carried unanimously.

The secretary suggested the appointment of Mr. G. M. Taylor, of Pinkie Hill, Inveresk, as honorary assistant secretary for Scotland. Mr. Scarlett made a formal motion to this effect, which Mr. Davie seconded. It was carried unanimously.

NATIONAL CHRYSANTHEMUM SOCIETY.

THE last floral committee of the present season took place at the Crystal Palace on Wednesday, the 6th inst., Mr. D. B. Crans in the chair. There were several promising flowers submitted to the committee, some of which gained the much-prized certificate. Those so recognised were the following:

Miss Miriam Hankey.—A very large massive-looking Japanese incurved flower, having long, fairly broad florets, building a deep flower; colour silvery lilac, faintly tinted rose. First-class certificate to Messrs. W. Wells and Co., Limited, Merstham, Surrey.

Mrs. Swinburne.—This is a very beautiful late flowering exhibition Japanese bloom of reflexed form, having fairly broad florets of good length, building a large flower; colour creamy white. First-class certificate to Mr. H. J. Jones, Ryecroft Nursery, Lewisham, S.E.

Mrs. G. Beech.—This is a lovely clear pale yellow sport from Mrs. Swinburne. It must be regarded as a distinct acquisition to the late flowering Japanese exhibition kinds. First-class certificate to Mr. Norman Davis, Framfield, Sussex.

The following single-flowered variety was commended: *Dorothy Fortescue*.—This is a large flowered single of quite a new and distinct Japanese type. The flowers have a single row of broad, spoon-shaped florets, that are pure white with a greenish disc. From Messrs. Wells.

COMMITTEE MEETING.

The executive committee of this society held a meeting at Carr's Restaurant, Strand, on Monday, the 11th inst. Mr. T. Bavan presided over a smaller attendance of members than usual. After the minutes and correspondence had been read, and various preliminaries dealt with, Mr. Gerald Dean, the acting secretary, presented an interim financial statement, which was considered satisfactory. He also stated that the prize money recently awarded at the December show was several pounds in excess of that awarded at the same show this time last year. The meeting then proceeded to fix the dates of the various committee meetings and shows with the following result, viz.:

The meetings of the executive committee for next year will be as follows: September 17, October 29, November 19, December 10, 1906, and January 14, 1907. Those of the floral committee were fixed for September 17, October 3, 15, and 29, November 7 and 19, and December 5. It was also resolved that the society should again hold three shows during the year 1906, and that they be held at the

Crystal Palace as follows: The early show on October 3 and 4, the great autumn festival on November 7, 8, and 9, and the late show on December 5 and 6. The floral committee, acting as the classification committee, will meet at midday on the first day of each show to settle questions of classification, &c. The usual dinner will be offered to the floral committee on a date convenient to its members, in recognition of its labours during the past season. Mr. Harman Payne produced a copy of the "Répertoire des Couleurs," recently published by the French National Chrysanthemum Society, explained the intention of its publishers, and its usefulness in colour nomenclature. It was resolved that a copy of this valuable and interesting work be purchased for use at the society's floral committee meetings.

It is well to remind members of the society that the annual general meeting will take place some time during the first week in February next.

MARKET SHOW OF CHRYSANTHEMUMS.

The National Chrysanthemum Society held a special exhibition of Chrysanthemums, as grown for market, in the Foreign Flower Market, Covent Garden, on Wednesday, the 13th inst. The show was not large, but there was an excellent display of market varieties. They were shown in vases and boxes as packed for market, and made a very attractive display.

Some of the best varieties shown were: *White*, Mrs. J. Thompson, Japanese incurved, Mme. Th. Panckoucke, large, with broad flat petals; *Western King*, roundish bloom with somewhat loose, broad, white petals. *Pink*, Mme. L. Charvet, globular-shaped bloom with reflexing petals, silvery white in centre of flower, the outer part being deep rose pink; *Framfield Pink*, charming red-pink flower reflexed. *Crimson*, Ecmouth Crimison, deep crimsoned, with brooze reverse to petals, the latter are broad and flat. *Bronze*, Tuxedo, pretty reflexed Japanese, the petals indented at the apex, giving a curious appearance to the flowers. *Yellow*, Negoya, beautiful Japanese with drooping rich yellow petals.

Other good sorts are *Red L. Canning*, rich dark red reflexed; *Allman's Yellow*, compact small reflexed, bright yellow; *Heston White*, pure white; *Lord Brooke*, Japanese, golden yellow; *Mme. El. Roger*, green, Japanese incurved.

For a collection of cut market Chrysanthemums in bunches, twelve blooms in a vase, the gold medal was won by Mr. Philip Ladds, Swanley, for a magnificent lot of flowers in market bunches. Messrs. Cragg, Harrison, and Cragg were awarded a silver-gilt medal for a very attractive lot of blooms. A large silver medal was awarded to Mr. Joseph Tulley, Rose Nursery, Epsfield Highway.

For twelve vases of market Chrysanthemums, in not less than six varieties, twelve blooms in a vase, a silver gilt medal was awarded to Messrs. Cragg, Harrison, and Cragg, Heston, Middlesex, for a handsome exhibit. A large silver medal was given to Mr. P. Ladds, Swanley.

For a collection of market Chrysanthemums in bunches or sprays, Mr. G. Prickett, St. Ann's Road, South Tottenham, won the gold medal for a very fine display of single decorative and thread-petalled sorts. A silver-gilt medal was won by Messrs. Cragg, Harrison, and Cragg. A large silver medal was awarded to Mr. Philip Ladds, Swanley.

In the class for six plants of decorative Chrysanthemums, some splendidly bloomed specimens were shown, Mr. E. S. Goundrie, Heathside Nursery, Dartford Heath, Kent, won the large silver medal; Mr. A. Weekes, The Green Nursery, Welling, Kent, being awarded a small silver medal.

For a collection of market Chrysanthemum blooms or sprays in vases, the gold medal was won by Mr. David Inghams, 27, Catherine Street, Covent Garden, with a beautiful exhibit.

The best packed two boxes of market blooms were shown by Mr. David Inghams, the blooms being arranged at each end of the boxes, leaving the centre occupied by the stalks only; each layer is kept in position by cross pieces.

Three vases of white market varieties, twelve blooms in each vase, Mr. A. Smith, The Nursery, Epsfield Highway, won the large silver medal.

The best three vases of pink sorts were shown by Messrs. Cragg, Harrison, and Cragg, Heston.

Mr. A. Smith, Epsfield Highway, was first for three vases of crimson and for three vases of bronze-coloured blooms.

Mr. Joseph Tulley, Rose Nursery, Epsfield Highway, was first for three vases of yellow blooms.

For the best packed two boxes of market Chrysanthemums, one of blooms and one of bunches, the large silver medal was won by Messrs. Cragg, Harrison, and Cragg, Merryvale Nurseries, Heston. Mr. A. Smith, Epsfield Highway, winning the small silver medal.

For a table of one variety of market Chrysanthemums Messrs. B. Shearn and Son, 42, Store Street, Bedford Square, won the large silver medal with a fine lot of Framfield Pink.

For a group of pot-grown market Chrysanthemums Mr. E. S. Goundrie, Heathside Nursery, Dartford Heath, won the silver-gilt medal, a large silver medal being awarded to Mr. A. Weekes, Welling.

NEW MARKET CHRYSANTHEMUMS.

The best new market Chrysanthemum not in commerce was adjudged to be the variety

Golden Thompson, a sport from Mrs. Thompson. It is a Japanese incurved, with terra-cotta bronze petals. The flowers are of good size and freely produced. A large silver medal was awarded to it.

A small silver medal (second prize) was given to the variety

Old Gold, a handsome reflexed Japanese. The colouring in the centre of the large, flatish flower is old gold, or almost bronze, fading to yellow towards the margin. A

very beautiful flower. From Messrs. W. Wells and Co., Merstham.

A bronze medal (third prize) was awarded to the new variety

Miss Hilda Weekes, a sport from Niveus. This is a medium-sized full flower, with rather loose petals. The blooms are produced so closely together as to form quite a mass of bloom at the end of the stems. Shown by Mr. A. Weekes, The Green Nursery, Welling.

DUBLIN SEED AND NURSERY EMPLOYEES' ASSOCIATION.

THE third annual dinner of this association was held on Saturday, the 9th inst., at the Gresham Hotel, Dublin. Mr. J. J. Egan, J.P., presided.

The toast of "The King" having been honoured, Mr. F. W. Ball, acting secretary, read congratulatory telegrams from the Edinburgh and Glasgow seed trade and also several letters of apology, after which the winners in the recent competitions received their prizes.

Mr. Houston proposed the toast of "The Association," which he said had had a brilliant career during the last year. The membership had increased, they had undertaken four excursions to places of interest, had two public lectures, and class lectures. The junior members had been particularly earnest, while the average attendance at the classes amounted to forty.

Mr. J. J. Egan, J.P., in responding said that the intelligent application of the science of botany in its relation to agriculture and horticulture was essential to the members of their trade. A seedman was supposed to know everything about plants, their diseases, and remedies, and this knowledge, therefore, became essential.

"Our Employers" was proposed by Mr. R. Burn, who said they could not have done so much had it not been for the interest of their employers.

Mr. D. MacLeod in reply said that the association had received at the hands of employers the support it so well deserved, and the more they saw of its members the better they liked them. It had been suggested that they wanted a habitation of their own, and he hoped the time was not far distant when that would be forthcoming. In conclusion he emphasised the words "Go on."

Mr. Pethybridge, P.N.D.B.S., in replying to the toast of "Our Guests" said that science and practice should go hand in hand, and that the oftener the scientific man came down from his lofty pedestal and met the practical man, the better would be the results likely to be attained.

CROYDON AND DISTRICT GARDENERS' SOCIETY.

THERE was a very good attendance to meet Mr. W. A. Cook, Leonardslee Gardens, Heston, at the society's rooms on the 5th inst. Mr. Cook is a member of this society, having joined when living in this neighbourhood, and although the opportunities for him to promote its welfare, since his appointment to Leonardslee, are not so frequent, he still has a warm corner in his heart to do what he can. Hence his highly-descriptive paper on "Winter and Spring Flowering Shrubs," read before the members on the date named. The subject, which is a vast one, was outlined in a concise and lucid manner, and many hints for the further embellishment of our gardens were given. The discussion following the paper was well maintained by Messrs. Bentley, Brown, Sugden, Gregory, Cutler, Boshier, and Mills, and to the questions asked Mr. Cook fully replied. A hearty vote of thanks to him brought an enjoyable evening to a close.

CHRISTMAS HOLIDAYS.

ROYAL HORTICULTURAL SOCIETY.

OWING to the Christmas holidays, the report of Tuesday's meeting cannot appear until next week.

SCOTTISH HORTICULTURAL SOCIETIES.

ROYAL HORTICULTURAL SOCIETY OF ABERDEEN.—The annual meeting was held in the Music Hall, Aberdeen, on the evening of December 2. Mr. Pope, vice-chairman, presided. The annual report was submitted by the secretary, Mr. J. B. Bennet, and was adopted on the motion of the chairman, seconded by Mr. D. Edwards. The report stated that there had been a deficiency of £77 12s. 11d., due to the bad weather during the show, a result much regretted by the directors, who had done everything in their power to bring about a better result. The drawings were about £200 less than at the show of 1904. He appealed for a greater measure of support from the public. The office-bearers were practically all re-elected, Mr. T. Ogilvy being again appointed chairman; Mr. Pope, vice-chairman; Mr. J. B. Bennet, secretary; and Mr. John Leith was appointed to the directorate, in lieu of Mr. Todd.

LEITH.—The annual meeting was held recently, when a highly-satisfactory financial statement was presented and approved of. It reported a total income for the year of £621 5s. 8d., including a balance of £12 1s. 10d. brought forward from the previous year. Several accounts were still due to the society, but the total balance to the credit amounts to upwards of £100, a very satisfactory statement indeed. The office-bearers were appointed as follows: Hon. president, Provost Mackie; hon. vice-president, Mr. Kemp; president, Mr. David Reid; secretary, Mr. John Fairley; treasurer, Mr. Donald McEnerson; trustee, Mr. D. Robertson.

FORFAR CHRYSANTHEMUM COMPETITION.—The Meffan Institute Hall, Forfar, was the scene of a bright and well-contested exhibition of Chrysanthemums, held under the auspices of the Forfar Horticultural Improvement Association, on the evening of December 5. The flowers exhibited were of high quality, and in most classes the competition was very close. Among those who were most successful in

the classes confined to amateurs were Messrs. R. Bruce, D. Piggott, and J. Brown; and in the open classes Messrs. W. McGregor, Benholm Lodge, A. Harris, Baronhill, A. Stark, Glamis Road, Anderson, Balgavies, A. Low, J. Low, J. Stark, Bruce, and R. Rae.

ROYAL HORTICULTURAL SOCIETY'S EXHIBITIONS & MEETINGS IN 1906.

January 9.—Exhibition and meeting.
January 23.—Exhibition and meeting.
February 13.—Exhibition and annual meeting, 3 p.m.
March 6.—Exhibition and meeting.
March 20.—Exhibition and meeting.
March 22 to 24.—Exhibition of Colonial-grown fruit.
April 3.—Exhibition and meeting.
April 17.—Exhibition and meeting. Auricula and Primula Society's show.
May 1.—Exhibition and meeting.
May 15.—Exhibition and meeting.
May 29, 30, and 31.—Show in the Inner Temple Gardens.
June 6 and 7.—Exhibition of Colonial-grown fruit.
June 12.—Exhibition and meeting.
June 20.—Exhibition of table decorations, &c.
June 26.—Exhibition and meeting.
July 5.—Sweet Pea Society's show.
July 10 and 11.—Summer show at Holland House.
July 17.—Exhibition and meeting.
July 24.—Carnation and Picotee Society's show.
July 30, 31, and August 1 and 2.—International conference on plant breeding.
August 14.—Exhibition and meeting.
August 28.—Exhibition and meeting.
September 11.—Exhibition and meeting.
September 19.—R. & S. Society's autumn show.
September 25.—Exhibition and meeting.
October 9.—Exhibition and meeting.
October 16 and 17.—British grown fruit show.
October 23.—Exhibition and meeting.
November 6.—Exhibition and meeting.
November 20.—Exhibition and meeting.
December 4 and 5.—Exhibition of Colonial-grown and home-grown preserved fruit.
December 11.—Exhibition and meeting.
December 13 and 14.—Potato Society's show.
January 8, 1907.—Exhibition and meeting.
January 22.—Exhibition and meeting.

Some of the above dates fall on days other than Tuesdays, but all except the Temple and Holland House will be held in the Royal Horticultural Hall, Vincent Square, Westminster, S.W. Fellows admitted free; the public on payment at 1 p.m. The subjects of the lectures will be found in the Book of Arrangements, 1906.

LEGAL POINTS.

SHOOTING DOGS TRESPASSING (*Market Gardener*).—It is a criminal offence to unlawfully and maliciously kill or wound any dog, but it is a defence to show that the act was not malicious and that it was done in the *bona fide* belief that it was necessary for the protection of the accused's property or that of his master. The accused, however, may be liable in damages unless he can show that the shooting was necessary for the above purpose. It is doubtful whether the owner of a dog is liable for damages committed by the dog when trespassing, unless the owner knew that the dog possessed a mischievous propensity, such as a propensity to kill game. But the owner of a dog is liable in damages for injury done to any horses, cattle, or sheep by his dog, and it is not necessary for the party seeking such damages to prove that the owner knew that the dog was mischievous or that the injury was attributable to neglect on the part of the owner. Where the amount of the damages does not exceed £5 the same may be recovered before a justice of the peace or magistrate. The occupier of the premises, where the dog was living at the time of the injury, is deemed to be the owner, and is liable as such, unless the occupier can prove that he was not the owner, and that the dog was kept on the premises without his sanction or knowledge.

INCOME TAX (*Williams, Northumberland*).—Schedule B comprises the tax on the benefit derived from the occupation of land for agricultural purposes. Where the land is let the tax is payable by the farmer. Where the owner retains the land in his possession the tax is payable by him. The annual value is the basis of assessment. The tax is payable on one-third only of such annual value. The assessments are made annually, but the valuations are usually allowed to stand for five years. A farmer may elect to be

assessed under Schedule D instead of under Schedule B, in which case the profits arising from the occupation of the land in his possession will be chargeable as profits of a trade. The right to assessment under Schedule D seems to be a doubtful privilege. Abatement is allowed in respect of small incomes. For the purposes of such abatements the farmer's income is taken to be one-third of the annual value, viz., the amount on which tax is payable, e.g., if the annual value is £480 only, the tax is payable on one-third of that sum, viz., £160. Persons possessing incomes of £160 are, however, exempt from the payment of tax, so that in the case of a farm of the annual value of £480 no tax whatever is payable by the occupier. If the value exceeds £480, and does not exceed £1,200, tax will be payable on one-third of £1,200, viz., £400. Persons in receipt of incomes of £400 are, however, entitled to an abatement of £160 of the £400, so that tax is only payable on £240. For the purposes of an abatement the farmer must, however, include not only the annual value of his farm, but the income arising from the remainder of his property. If the annual value proves to be more than the preliminary estimate, the occupier will be entitled to have the assessment rectified, but he must claim a return of the duty within one year from April 5. As above explained, the tax is payable three months in advance, i.e., the tax year ends on April 5, but the tax is payable on or before January 1.

PRIZES FOR GARDENERS. DECEMBER.

TABLE DECORATION.

A First Prize of FOUR GUINEAS,
A Second Prize of TWO GUINEAS,
A Third Prize of ONE GUINEA,
And a Fourth Prize of HALF-A-GUINEA
are offered for the best essays on "Table Decoration."

The essay must not exceed 1,500 words; it must be written on one side of the paper only, and be enclosed in an envelope marked "Competition," addressed to "The Editor of THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C." The essays must reach this office not later than January 6. Both amateur and professional gardeners may compete. The name and address of the competitor must be written upon the MS., and not upon a separate piece of paper. The Editor cannot undertake to return the MSS. of unsuccessful competitors.

LATE NOTES.

The Midland Carnation and Picotee Society will hold its next year's show in the Botanical Gardens, Edgbaston, on August 1 and 2.

Royal Horticultural Society's Public Parks Examination.—This examination is specially intended for gardeners employed in public parks and gardens belonging to county councils, city corporations, and similar bodies, and will be held on Thursday, January 11, 1906, in the Royal Horticultural Society's Hall, Vincent Square, Westminster, S.W. The examination, which will commence at 10 a.m., will be partly written, partly *visu voce*, and will occupy three hours for the written portion, and about twenty minutes each candidate's *visu voce*. A syllabus, with entry form attached, can be obtained on application to the secretary, Royal Horticultural Society, Vincent Square, Westminster, to whom intending candidates should send in their names as soon as possible. No entry can be accepted after December 31, 1905. The society has just published an entirely new and revised edition of the little pamphlet on

"Varieties of Fruits," useful for private gardens and for small farmers and cottagers. It is divided into Apples for eating, Pears for eating, for orchard, for cooking, Plums for eating and for cooking, Damsons, Cherries, Raspberries, Currants, Gooseberries, Strawberries; notes on planting, on pruning, on root-pruning, on manuring, on artificial manure. There is, further, an added list for enthusiastic amateurs, which gives some of the newer fruits which have thus far promised well, but are hardly sufficiently proved, or, for some other reason, not included in the general recommendations. It is a most useful little pamphlet for 2d., or 25 copies for 2s., 50 for 3s., 100 for 4s.

National Sweet Pea Society.—The annual general meeting of this society was held at the Hotel Windsor, on Tuesday, the 12th inst., under the presidency of Mr. Percy Waterer. Before the formal business the chairman proposed a vote of condolence with Mrs. Eckford and family upon the death of Mr. Henry Eckford, V.M.H., a past president of the society. The report presented to the meeting was somewhat lengthy, and we are unable to give its complete text. The chief feature was its exceedingly satisfactory tone from beginning to end. It showed that 150 new members had joined the society during 1905, that the turnover had increased by about £60, that the Sweet Pea annual had proved a great success, that the balance in hand showed a slight increase, that the value of the stock (vases, medal dice, staging, &c.) had risen from £17 to upwards of £30. The retiring officers, Mr. Percy Waterer, president, and Mr. C. W. Breadmore, were heartily thanked; while Mr. N. N. Sherwood, V.M.H., treasurer, and Mr. Horace J. Wright, secretary, were thanked and unanimously re-elected. Mr. Alfred Watkins (Messrs. Watkins and Simpson, Tavistock Street, Covent Garden) was elected president, and Mr. John Green (Hobbies, Limited, Norfolk Nurseries, Dereham), chairman, for the ensuing year. The excellent progress of the National Sweet Pea Society must be very satisfactory to all concerned, and Mr. Horace J. Wright, the honorary secretary, is to be congratulated upon the success attending his hard and careful work. That it has been well directed is abundantly proved by the gratifying results.

Unfair exhibiting.—The following letter appeared recently in the *Hereford Times*: "Having read with interest the letters respecting the Herefordshire Fruit and Chrysanthemum Society, may I say that whilst admitting the ability of our noted gardeners as fruit growers, I am prepared to state that there are many who are not particular as to the means they adopt to enable them to carry off the prizes at our shows generally. The gardener who grows his exhibit finds it no easy task to compete with his neighbour who, if he happens to be short of a certain dish, or finds that his own is not quite up to the standard, will procure it from some source or other. This is quite a common occurrence in the case of collections of fruit. I have had considerable experience under some of our best growers and exhibitors in different counties (Herefordshire included), and I regret to say I have seen this kind of thing practised more than once. I remember an instance when an exhibitor purchased no less than four dishes of fruit to make up his collection. This may seem rather a bold assertion to make, but it is true nevertheless. Then when we read the report of the show we find a glowing account something after this style:—'So and so exhibited a fine dish of Peaches, variety, Sea Eagle, Barrington (or as the case may be), and other fruit of fine quality, which was deservedly awarded first prize.' But the question as to whether he grew all that fine fruit is beyond the judges.—A YOUNG GARDENER, Llanelli, South Wales."

* * * The Yearly Subscription to THE GARDEN is: Inland, 6s. 6d.; Foreign, 8s. 9d.

THE GARDEN.

No. 1780.—VOL. LXVIII.

DECEMBER 30, 1905.

ROSES FREE FROM MILDEW.

THIS is a subject of such importance to the Rose grower, no matter whether a large or small garden is available, that we give prominence to it in the hope of eliciting as much information as possible. The following letters will be read with interest :

I was pleased to see Mr. Goodwin's letter drawing attention to this subject, and I quite agree with him that this is a matter which is well worth looking into, and, I may add, one which we nurserymen have somewhat neglected. Last autumn mildew was extremely prevalent in most places, and I took the opportunity of making notes upon those varieties which resisted the attack. The plants examined were maidens, growing in heavy soil, and not over rich. The time was the latter end of September, and the days were warm and sunny, with frost on six consecutive nights and heavy dew, conditions which, I take it, were most favourable for the development of mildew. As will be seen, the Roses named by Mr. Goodwin are almost all in my list, the exceptions being two or three which we do not grow and Grüss an Teplitz, which is in my list of "partially affected," this variety being touched on the young wood. My list of those "free from mildew" is as follows :

Tea-scented. — Billiard et Barré, Bridesmaid, Catherine Mermet, Celine Forestier, Comtesse de Nadaillac, Comtesse Sophy Torby, Corallina, Dr. Grill, Dr. Rouges, Enchantress, Françoise Crousse, General Schablikine, G. Nabonnand, Golden Gate, Homère, Lady Roberts, Lucy Carnegie, Mme. Bravy, Mme. Jean Dupuy, Mme. Wagram, C. de Turenne, Maman Cochet, Marie van Houtte, Medea, Morning Glow, Mrs. B. R. Cant, Peace, Prefet Montiel, Princess of Wales, Souv. d'Elise Vardon, Souv. de Pierre Notting, Souv. de C. Guillot, Souv. d'un Ami, Souv. de Thérèse Levett, The Bride, and White Maman Cochet.

Hybrid Teas. — Anne Marie Soupert, Augustine Guinoisseau, Caroline Testout, Grand Duc de Luxembourg, Gloire Lyonnaise, Irish Glory and Modesty, Lady Mary Corry, Lady Waterlow, Mme. C. Monnier, Marjorie, and Papa Gontier.

Hybrid Perpetuals were not taken into consideration, but must remain for a future occasion.

Of course, there were many others which were comparatively or almost entirely free, but those given above were entirely immune. It will be interesting to find out whether soil and locality in any way affect this question, or whether the varieties which are proof

against the attack in one place are equally proof in all cases.

I could give a very long list of Roses which with us were only slightly attacked, but this would serve no useful purpose, and would take up too much of your space. I will conclude by naming a few of those which suffered badly. They were David Harum, Etoile de Lyon, Edith D'ombrain, Exquisite, George Laing Paul, Hon. Edith Gifford, Mamie, Mme. Cusin, Mme. C. Ramey, Mme. de Watteville, Mme. Jules Grolez, Mildred Grant, Robert Scott, and Souv. de la Malmaison.

Lowdham.

A. H. PEARSON.

I see on page 381 of *THE GARDEN* Mr. A. R. Goodwin includes Grüss an Teplitz in his list of mildew-proof Roses. My experience in this garden is that it is one of the worst Roses for mildew. I have a large bed containing several dozen plants, and during the last two summers they have been covered with mildew from quite early in the season, notwithstanding continual applications of sulphide of potassium. Our soil is clay on a sub-soil of old red sandstone, and the garden stands nearly 700 feet above sea-level.

LOUISA WAKEMAN-NEWMPT.

Hanley Court, Tenbury.

RIVIERA NOTES.

THE little so-called *VIOLA CORNUTA PAPILIO*, mentioned as of value in England for covering the ground underneath Roses, is, I should fancy, a strain of some alpine form of *Viola tricolor* rather than a cornuta hybrid, as French nurserymen assert. Seedlings now and again revert to a small and almost petal-less flower of absolutely procumbent habit, straw white in colour, with no trace of cornuta anywhere. For winter and spring bedding I should prefer it to the larger florist strains, and for quantity of bloom it is quite unapproachable. My own experience with it in England last summer was unfortunate. It could not stand the heat and drought of July, and only a few plants survived to grow and bloom when the rains and cool nights arrived in August and September. I should recommend sowing it in July, and thus avoid the check of a dry summer, using it to edge any planted-out beds of autumn Chrysanthemums, where it would remain all winter to flower as the weather permitted. It will not survive the summer here, so it is sown afresh each year in the autumn and planted out in January to fill the beds that *Salvia splendens*, *Zinnias*, and *Cockscombs* have filled till then.

DAHLIA IMPERIALIS is at last in fine flower quite a month behind its usual date. How delightful it would be to obtain a hybrid between it and some richly-coloured

Cactus Dahlia ! By a little judicious management it might be possible either to keep the pollen dry for a month or two to force a small plant of *D. imperialis* into bloom before the last *Cactus Dahlia* had faded. How very brilliant and rich in colour the biennial

CUPHEA SPLENDENS is just now ! Were it annual or a true perennial it would be a plant for everybody's garden. But to those who do not grudge a certain amount of trouble it is a plant of the most striking beauty ; its flowers are so large, and the habit so neat and floriferous.

ROSA BRACTEATA (the Macartney Rose) is still giving a fair amount of bloom, and its vigorous shoots and glossy foliage make it ornamental at all times. Owing to its late flowering it is not as much grown as its near relative *R. sinica*, but it is even more vigorous and indifferent to soil and situation, withstanding severe droughts marvellously. It is now being tried as a stock for winter Roses, as it is a conspicuously continuous grower throughout the whole of the winter.

ROSE SOUVENIR DE PIERRE COCHET is growing and flowering freely now at the foot of a south wall where Lamarque and White Maman Cochet are trained. It is a pretty little Rose, but it does not fulfil the expectations raised by the selected blooms at a show, and where the glorious golden George Schwartz thrives there is no need for another that is less good.

The heavy rains of this autumn have at length penetrated the ground, and the late-pruned Roses promise fairly well for winter bloom when on their own roots or on indica major stock. Those on the Briar are so much injured by the severe drought of last season that they will do nothing till spring comes. The severe pruning of last winter's frost has produced a remarkable growth and abundant flowers on such things as *Heliotropes*, *Cestrum aurantiacum*, *Tacsonia ignea*, *Bougainvillea Sanderæ*, *Linum trigynum*, *Ageratum*, *Habrothamnus*, *Salvias* of many sorts, and I notice that several forms of *Iris germanica* are in fine flower since the rains aroused them into life.

EDWARD H. WOODALL.

CHRYSANTHEMUMS AT FRAMFIELD.

NOTES of the Chrysanthemum season would be incomplete without a description of the novelties and other good things that Mr. Norman Davis has at his Chrysanthemum nursery at Framfield, near Uckfield, Sussex. Not a season passes without the acquisition of some of the best of the novelties, and to these must be added the remarkable seedlings raised by Mr. Davis himself. The present season is no exception to the rule. Japanese novelties

have been grown here, and exhibited at the leading shows throughout the country.

Of the Japanese novelties, the beautiful lemon yellow, flushed reddish chestnut blooms of Mrs. R. Hooper Pearson are among the best. It is a large, full drooping flower of good form, and will prove valuable to exhibitors. Another striking flower is Norman Davis. This is said to be the result of a cross between Henry Perkins and Lord Ludlow, both excellent parents.

The flower is large, drooping, with long, broad florets. It is an ideal exhibition bloom. The colour may be described as rich chestnut with gold reverse, a much glorified form of Henry Perkins. A Japanese bloom of reflexing form, bearing the important name of British Empire, is a variety that has come to stay. It has long petals of medium width. Colour, orange yellow, overlaid with chestnut-bronze. The plant is robust and dwarf. It is a seedling from Lord Ludlow, crossed with General Hutton. A very good flower with rather long, narrow florets is The Mikado. This has somewhat the character of George Penford, but is finer. The plant is dwarf and easy to grow. This new sort is regarded by Mr. Davis as being similar to Mr. Silsbury's Magnificent, exhibited at the Crystal Palace Show of the National Chrysanthemum Society in November last. He says he cannot see a particle of difference. White Paolo, which is a provisional name only, is a seedling of Paolo Radaelli type, much resembling the original, but with a smooth and finer floret. The plant is dwarf, and is also an easy grower.

Mr. Davis is again distributing the novelties raised by Mr. Penford, the best of which may well be included in these notes. A Japanese bloom, similar in form to the popular Mrs. F. W. Vallis, is named Sidney Penford. The florets are broader and more graceful. It is a capital acquisition for exhibition; colour, terra-cotta red. A pure yellow flower is Miss Kathleen Paget. The blooms of this variety have broader florets than those of Duchess of Sutherland, though they are quite different in form to that excellent sort. There is little doubt this novelty will be very popular. Flowers of a crimson colour are added to this year by the acquisition of Leigh Park Wonder. It is an immense exhibition flower, and the colour is a shade of dark crimson.

Last year's novelties were doing extremely well. Algernon Davis, which received a first-class certificate of the National Chrysanthemum Society earlier in the season, is undoubtedly a first-class exhibition variety. It is somewhat bronzy yellow, tinted a chestnut shade. This is a very consistent sort, and is of easy culture. Miss Mona Davis is a beautiful flower, and quite large enough for exhibition. It has long, drooping florets, and the colour is creamy white. The plant is excellent for the conservatory. Japanese flowers of a good pink colour are always to be desired. In Mrs. W. Gooding we have a rich pink bloom of great depth and large size. This plant is another of Mr. Bullimore's seedlings. Mme. R. Oberthur is an ivory white, though sometimes slightly tinted with pale mauve. Another beautiful white, also of Calvat's raising, is Mlle. Anna Debono. The flowers are immense, pure white, and are charming when grown in a free manner for decorative uses. Japanese blooms of a crimson shade of colour are now numerous. Those which stand out prominently among last season's introductions are three handsome sorts, named respectively George Hutchinson, Mrs. A. H. Lee, and Mrs. T. Dalton—a remarkable trio. The first-named variety is a deep, rich crimson, with long reflexing florets, splendidly adapted for exhibiting in vases. The second is one of the best of the year. It is a large and striking Japanese reflexed, of easy culture, and of a deep blood-red crimson with golden reverse. The last-named is also a beauty, and quite distinct from the other two. The colour may be described as a rich claret crimson, and the flowers resemble those of F. S. Vallis. It is impossible to describe in detail all the good things to be

seen here; but we must just mention by name a few of the better sorts; Marshal Oyama, Chrysanthemiste Montigny, Miss Fitzwygram (tawny yellow), Miss Dorothy Oliver, Marquise V. Venosta (white), Mme. Marguerite de Mons, Mrs. Chas. Davis (richest yellow), Mrs. W. Knox, Mrs. J. E. Dunne, Mrs. D. Willis James, E. J. Brooks, and Leigh Park Rival—all good Japanese.

Incurved varieties are less eagerly sought after now than formerly. Still, good novelties are to be had that will strengthen the hands of exhibitors. J. G. Shrimpton is a bright golden yellow of good form (certificated by the National Chrysanthemum Society), George Courtenay, rosy mauve; Frank Trestian, large, and very fine, colour orange buff; Connie Jamieson, bright pink; and Marjorie Shield, pale blush, are also good. These will be distributed in the early spring. Mr. Davis, from his earliest association with the incurved section at Camberwell, has always grown this type extremely well, and all the best of the standard varieties are still grown by him. Reflexed, large-flowered Anemones, long tasselled or Japanese Anemones, Anemone Pompons, and Pompons are grown at Framfield.

To meet the growing demand for singles—both large and small-flowered sorts, a large and representative collection is grown. A large batch has also been raised—crosses from all the most popular sorts. For years Mr. Davis has made a speciality of market varieties, and these are always interesting to exhibitors. Mr. Davis is ably supported in his efforts by his eldest son, Mr. Chas. Davis, who from his boyhood has been closely identified with all that concerns the Chrysanthemum.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

January 6.—Annual Dinner of the Société Française d'Horticulture de Londres.

January 9.—Royal Horticultural Society's Exhibition and Meeting.

French Horticultural Society.

This society will hold its seventeenth annual meeting and dinner at the Café Royal, London, on Saturday, January 6 next, at 6.30 p.m. Mr. John Harrison will take the chair. Particulars may be obtained from Mr. G. Schneider, the president, 17, Ifield Road, Fulham Road, London.

A valuable Jasmine.—Whether the Jasmine grown in gardens as *Jasminum grandiflorum* is the true species is at least doubtful, but whether it is or not, it is certainly a valuable climbing plant for the greenhouse, as its flowers appear during the autumn and early winter months. I take it to be a variety of the common Jessamine, viz., *Jasminum officinale* affine, which has been regarded by some authorities as a distinct species, under the name of *J. affine*. The common Jessamine has naturally a wide geographical range, through Persia and Afghanistan to the north-western portion of the Himalayas, where the variety affine occurs. The flowers of the last-named are considerably larger than those of the common kind, and have, when in the bud state, a reddish tinge, which, however, disappears on expansion. The fragrance common to most Jasmynes exists to a marked degree in this kind.—H. P.

A golden yellow Ornithogalum.—The South African *Ornithogalum aureum* is welcome, from the fact that its golden yellow flowers are produced during winter, and just in an ordinary greenhouse. By most authorities it is regarded as a variety of the somewhat variable *O. thyrsoides*, which was introduced from the Cape of Good Hope in 1757; but by others it is given specific rank under the

title of *O. aureum*. The leaves are strap-shaped, and the flower scape, which is 1 foot or more high, bears on its upper portion several showy blossoms, about 1 inch across. The segments are thick in texture and keep well, added to which the spike develops and other flowers unfold for some time. Like most South African bulbs a compost, made up chiefly of sandy loam, will suit it well, and, in common with the majority of such subjects from the same region, it continues to grow after flowering; hence, a good light position must be given it, even after the flowers have faded, so that the bulbs may develop for another season.—H. P.

Cyclamen Low's Salmon.—I have seen this at various shows, also at Messrs. Low's nursery, and consider it one of the best types. It is a colour much appreciated. The plant is of strong growth with flowers standing up well. Messrs. Low and Co. have long made Persian *Cyclamens* a speciality, and their many large houses filled with them form an interesting sight. Some plants were flowering, but as they are sent away as fast as they are ready, no great display was made. It was interesting to note that the best only were being selected for seed, the chief aim being clear and distinct colours.—H.

A beautiful Acacia.—Of the Acacias flowering at the present time in the Temperate house at Kew one of the most attractive is the comparatively new Australian species *A. baileyana*, which, when more generally distributed, is sure to become popular, as both leafage and flowers are very beautiful, these last being at their best in December. It is of tree-like habit, but plants struck from cuttings flower freely in a small state. The leaves are of a charming glaucous hue, while the flowers borne in little globose heads, arranged in short racemes, are of a rich golden colour. At present enquiries in various nurseries have failed to discover this species, but no doubt with its desirable qualities it will be obtainable before long. Except in the very favoured districts of the country it can only be regarded as suitable for the greenhouse or conservatory, but it is one of the plants mentioned by Lord Annesley in his list of ornamental trees and shrubs at Castlewellan, published in the Journal of the Royal Horticultural Society two or three years ago.—H. P.

Some good late Chrysanthemums.—In the well-kept garden of Park Side, Ravenscourt Park, Hammersmith, the residence of Mrs. Ford, where this beautiful autumn flower is well and extensively grown by Mr. F. Blackith, the capable head gardener, one noticed recently some good late varieties in flower, such as Frank Hammond, one of the finest incurved, and wants stopping early in May to get the first crown bud; Ben Wells, blush white, a very fine Japanese flower, long narrow florets, strong sturdy grower. In this variety we have a natural first crown. Another good sort is Miss Lucy Evans, colour heliotrope-pink, large flower, and a plant very easily grown, second crown. That large and handsome Chrysanthemum called Godfrey's Pride, with its carmine-crimson, bronze reverse flowers, should be stopped early in April, second crown; and regarding this last-named variety, Mr. Blackith has a good sport from Mafeking Hero, resembling Godfrey's Pride in colour. Good also was G. W. Child, a deep crimson flower. C. J. Salter is a beautiful canary yellow flower, named in compliment to the gardener at Woodhatch, Reigate, where the visitor may see many that are well grown.—Quo.

Two late-flowering Nerines.—By the middle of December almost all the beautiful forms of Nerine are over, but two of them still remain, and by reason of their late-flowering qualities they are much admired. The first, Nerine Manselli, was raised by Mr. J. O'Brien many years ago at the nursery of Messrs. Henderson, St. John's Wood, and first flowered by Mr. Mansel of Guernsey, after whom it was named,

In this the flowers, which are borne in bold heads, are of a bright carmine-pink colour. The second is one of the original species, *Nerine undulata* or *crispa*, as it is often called, which was introduced from South Africa as long ago as 1767. This is quite a small-growing kind, the leaves being grass-like, and the flower scape, which well overtops the foliage, bears several blossoms, the segments of which are extremely narrow, much undulated, and pale pink in colour. Though one of the least showy of its class, this *Nerine* is a pretty little plant, and valuable for its late blooming.—H. P.

An interesting climbing plant, *Heliophila scandens*.—There is just now in flower in the cool portion of the T range at Kew a very pretty and most interesting plant; pretty, from the quantity of white flowers it now bears, and interesting, from being almost the only climber in the enormous order *Cruciferae*, to which it belongs. It has slender, wiry stems, which grow quickly, and attach themselves to any support around which they can twine, narrow leaves from 1 inch to 2 inches long, of a rather fleshy nature, and pure white flowers disposed in loose racemes. This uncommon plant was first sent to Kew by Mr. Medley Wood, curator of the Botanic Gardens, Durban, in 1885, and flowered there the following year; but, as far as I know, it cannot even now be obtained from nurseries. For clothing a greenhouse rafter or furnishing a pillar in the same structure it is a desirable plant, the fact that its flowers are borne in midwinter being in its favour.—H. P.

Allamanda grandiflora in Madeira.—This plant is so called in honour of Dr. Allamand of Leyden. The showy flowers form one of the most striking of the many vivid coloured and perennial flowering plants of the Madeira gardens; and when seen in conjunction with the purple masses of the *Salvia viscosa*, and intertwining with the prolific *Lamarque Rose* upon our lattices, lends to the autumn season in that country much of the springlike character which is so puzzling to the English visitor on the approach of the winter months. There are no less than twelve species of this genus in cultivation, but nothing approaching in grandeur and brightness of yellow chrome the example here depicted. This is one of the stove varieties of *Allamanda*, but is easily started from cuttings or layers in a light loamy soil; and, in a sunny situation, needs very little artificial warmth even in a latitude much more northerly than that of this island.—E., *Funchal, Madeira*.

***Daphne odora*.**—Though far better known in gardens and nurseries as *Daphne indica*, this has long been a popular greenhouse flower, owing mainly to the sweet scent of its flowers and the fact that they appear usually about the last month of the year, when flowers are, at least in a cool greenhouse, none too numerous. It is a native of China and Japan, and, in the favoured parts of these islands, may be regarded as a hardy shrub, but in most districts it is for the greenhouse only. It may be grown in pots; in fact, neat little plants, all grown in 5-inch pots and studded with flower clusters, are turned out in quantity by a few cultivators. As they increase in size the plants do much better planted out than in pots, that is, if there any facilities for planting them, which is by no means the case in every greenhouse. A well-drained border in a mixture of loam, peat, and sand will suit them well. Where a bed under glass is planted with the more tender Himalayan *Rhododendrons* and such things this *Daphne* is just the thing to associate therewith, as the conditions are equally favourable for both classes of plants. Besides the typical form with purplish pink blossoms there is the variety *alba*—which has almost white flowers, but the plant is decidedly weaker than the other—and one (*Mazeli*) with variegated leaves. An interesting hybrid is *D. Dauphini*, raised between *D. odora* and the hardy *D. sericea*,

or *collina*, as it is more often called. In *D. Dauphini* the fragrance is less pronounced than in *D. odora*, while the flowers are more of a purple hue.—T.

A Perthshire fruit-growers' society.—The annual meeting of the Stormont Fruit-growers' Society was held at Blairgowrie on the 9th inst., Mr. J. Stewart Duff, the president, in the chair. A very satisfactory statement of the work of the past season was submitted by Mr. William D. Smith, the manager and secretary, which showed that, notwithstanding the smaller crop, upwards of 227 tons of fruit had been despatched, an increase of about 30 tons upon the quantity sent off in 1904. The total value of these consignments was upwards of £5,100, which yielded an average price for Strawberries of £21 17s. 6d. per ton, and for Raspberries of £22 8s. 10d. This was the highest average price obtained by the various local associations, and was probably due to the fact that about 90 per cent. of the fruit had been sold direct to the preservers. The Stormont Society was the largest despatcher of fruit in the

the older sorts being cultivated at all, as the newer and improved forms have everything to recommend them in preference to these. Even the labour in picking, as well as preparing them for table, is a consideration, in addition to the superior quality when cooked.—E. BECKETT.

NOTES ON HARDY PLANTS.

CHRISTMAS ROSES.

GROWING in a cottage garden in heavy loam, close to a stream running into the River Dart, were the finest Christmas Roses that I have ever seen. The situation was damp, and they were partially shaded by trees. The clumps, which were of the giant variety, were fully 4 feet across, while many of the flowers were quite 5 inches in diameter and carried on stems nearly 2 feet in height. Opinions differ as to the best time for planting, some pre-



THE CHRISTMAS ROSE.

district. A considerable increase in the membership was also reported. The retiring committee of management were re-elected, as also was the manager and secretary, whose services were much appreciated by the members.

A fine Runner Bean.—The variety sent out last year as Carter's Mammoth Exhibition, but which, I believe, is to be renamed during the coming year, has fully borne out all the good qualities I predicted for it. It was raised by that splendid vegetable grower Mr. R. Lye, of Sydmonton Court Gardens, Newbury, who seldom, if ever, was beaten for this variety when in competition. Under the best cultivation the pods attain a length of from 12 inches to 15 inches; they are most refined and taking in appearance, and of a beautiful deep green colour. It is one of the most prolific varieties I know, and the quality is unsurpassed by any other Bean. Not only should every exhibitor make sure of obtaining it, but I strongly recommend it to all who have a garden and grow Beans. I have long been surprised at

ferring February, as soon as the blooming season is past, and others September, when the plants have finished making growth. I have planted at both seasons with good results; indeed, I think that if the plants are taken up with a large ball of earth they may be moved at almost any time. I have removed plants when the flower-buds were formed and were fully 2 inches above the earth. The blossoms opened well and were exceptionally fine, while the plants, apparently, never felt the move. In shifting very large clumps it is wisest to break them up and plant the divisions separately, for old clumps, when moved entire, sometimes die in the centre, both crown and roots rotting until the whole plant becomes in an unhealthy state and often dies.

If sufficient trouble is taken Christmas Roses can be grown excellently in tubs. Some years ago I saw a collection treated in this manner, and the plants were the picture of health, the foliage spreading over the edges of the tubs, and being of the darkest green. I was informed that they were placed under the shade of a high hedge

during the summer months and given weak manure water twice a week. The tubs were brought under glass when the buds were about an inch clear of the soil. Protection of some sort is advisable for plants grown in the border in order to prevent the flowers being damaged and splashed with dirt during heavy rains. Hand-lights with movable tops are, perhaps, the most satisfactory, as the tops can be tilted in fine weather and shut down during storms. Another plan is to place a garden frame over the bed, and small lights 2 feet square with iron legs are sometimes used, these being firmly fixed in the ground so that the glass is just above the leaves. A glass cover tends to lengthen the foot-stalks and to keep the blossoms pure in colour. Frost never harms the plants; indeed, in the Austrian Tyrol they may be often found in flower upon brushing aside the snow crust. In the long-continued frost of the early months of 1895 half-expanded buds lay prone on the ground for over two months, but upon the advent of more genial weather these regained an upright position and opened into perfect flowers.

The following are the varieties of the Christmas Rose, but considerable uncertainty exists in many quarters as to their nomenclature:

Helleborus niger altifolius.—The giant Christmas Rose, also known as *H. n. maximus*, *grandiflorus*, and *giganteus*. This commences to bloom at the end of October, and is generally out of flower by Christmas. It bears white flowers, sometimes tinged with rose at the back of the petals, about 5 inches across, carried on tall, red-spotted stems; the foliage is very large, and of a deep green. Two and three flowers are sometimes borne on a single stem. This was probably the first variety introduced into the south-west, as it is to be found in that district far more plentifully than any of the other varieties.

H. n. juvernais.—St. Brigid's Christmas Rose. Some nurserymen catalogue St. Brigid's as *H. n. angustifolius*, which is quite a distinct variety. This is a very lovely flower, perhaps the most beautiful of all. It bears pure white cupped flowers on pale green foot-stalks, the leaves also being of a light green, and scarcely serrated. It was raised by the late Mrs. Lawrenson, "St. Brigid."

H. n. angustifolius.—Of this there are two varieties, namely, the Manchester variety and the Scotch variety, the last being sometimes catalogued as *H. n. scoticus*. In both the foliage is narrow and the leaves and flower-stalks are tall, the blossoms being more starry in form than other varieties. In the Manchester variety the flowers are pure white, while in the Scotch variety the petals are suffused with rose at the back.

H. n. major (Bath variety).—This is the variety chiefly in use for the provision of cut flowers for the Christmas market. It is a very free bloomer, and largely grown. It flowers from the end of November for two months, and is at its best at Christmas. Its flowers are a very pure white, but are smaller than those of *H. n. altifolius* and carried on shorter stems.

H. n. (Riverston variety).—Another Irish Christmas Rose. Its flowers are large, good in form, and pure white. The foot-stalks are green, but the leaf-stalks are slightly spotted with red.

H. n. (Brockhurst variety).—This is sometimes held to be synonymous with the Manchester variety of *H. n. angustifolius*, but its petals, at least in my garden, are broader, and its foot-stalks slightly shorter.

H. n. Mme Fourcade.—A Continental variety, bearing pure white cupped flowers, rather smaller in size than the forms already named. It blooms later than any other variety, often being still in beauty in the first week of March.

H. n. Apple Blossom.—Sometimes styled *carnea*. The buds are bright rose, and the flowers when fully expanded of pale flesh colour. The blossoms are more starry than in any other variety, the petals being narrower.

South Devon.

S. W. FITZHERBERT.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

HARDY BULBOUS IRISES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—There is an interesting little note on *I. Vartan* in THE GARDEN of the 9th inst. *I. alata* is also mentioned, a pretty sky-blue flower, with much broader and ampler foliage than most of the hardy bulbous Irises. I have tried growing nearly all these in pots, and find



BRAZILIAN SUGAR GOURD ON PILLAR.

that, with the exception of the last-named, the bulbs are no use for flowering after the first year. *I. alata*, on the contrary, will become established in a pot, and flower better every year. I potted some bulbs in the autumn of 1902, and they have remained in the same pots until now. The first year they did not flower at all, but since then they have each season been more floriferous, and are now just beginning to make a promising show for Christmas, when they will look very pretty in a cool greenhouse, associated with white Roman Hyacinths and other seasonable things.

One thing I would mention for the guidance of the beginner, I never by any chance let these little plants be subjected to even the slightest forcing, and this, no doubt, accounts for my success with them. *I. reticulata* flowers well in pots the first year, but is no good the second. In the open ground, however, this charming little thing will flourish and increase in favourable quarters. I have this year obtained from Mr. Max Leichtlin of Baden-Baden a few bulbs of *I. melusine*, and am awaiting their flowering with interest. This is, I think, a seedling from *I. reticulata*, and is described as of a sky-blue colour. Mr. Leichtlin has, I believe, other even more interesting seedlings coming on, but informs me that there is not just yet sufficient stock of these to put them into commerce.

Rye.

F. HERBERT CHAPMAN.

ROSE LIBERTY.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—This is, undoubtedly, one of the finest introductions of recent years. I have a bed of it in flower now in this cold district when all others are bare sticks. It has kept its foliage, and looks quite presentable.

Handsworth, Sheffield.

W. A.

WHERE CHRYSANTHEMUM EXHIBITIONS FAIL.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Your correspondent D. B. Crane, in your issue of the 2nd inst., laments a "want of representation of the smaller decorative sorts," and intimates "the society taking them in hand would deserve special recognition," and says "reflexed and Anemones are rarely seen," and also advocates the cultivation of Pompons and singles. As I have not seen any report of the Finchley show in your esteemed publication I take the liberty of sending you particulars (as fully reported in the Barnet Press), from which you will note that the Finchley Chrysanthemum Society offers prizes for all the varieties mentioned by your correspondent. I may add that I am very much in agreement with your correspondent's remarks, and for the past few years, in addition to other varieties, have been making quite a speciality of singles.

New Southgate.

M. H. MATTHEWS.

[We are very pleased to know that the Finchley Society has so comprehensive a schedule. Unfortunately, we are unable at this late date to publish the report, but from it we see that the beautiful classes referred to by Mr. Crane are well represented.—Ed.]

ORNAMENTAL GOURDS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—The great variety in size and shape, as well as in the colouring of the fruits of these plants, make them valuable and interesting in the garden. They range in size from the miniature Gourd of barely an ounce up to the Mammoth Pumpkin, which grows to an enormous size under favourable conditions. They are all readily grown in this country, and there are several ways of using them with advantage. The smaller fruited forms are admirably adapted for growing on low trellis work or on arches. Others may be used for covering bare poles, as in the accompanying illustration, which shows a specimen of the Brazilian Sugar Gourd. This has rich golden coloured fruits of medium size, which are useful as well as ornamental. For covering arbours and providing shade with their large leaves they are very useful and effective, with the added attraction of various shaped fruits suspended from the Vines.

They may also be grown on raised mounds or banks, or even on the level ground, like the Vegetable Marrow. In the autumn the fruits of

[illegible]

Mrs. W. Butters.—This is a rather large

fluffy variety, specially valuable when cut in undisbudded or partially disbudded sprays; it is a good white sort for December blooming, attaining a height of 4 feet.

Crimson Tangle.—In this instance the flowers are quite distinct, having narrow florets of a rich crimson colour with a golden reverse, making a very striking and beautiful flower; height about 3 feet.

Miss Harvey.—Very pretty white flowers, with frilled and notched florets; beautiful in sprays; height 4 feet.

Lady Onslow.—A charming little plant for the conservatory; beautiful blossoms of a lemon yellow colour, with narrow florets, forming a perfect ball; plants bushy and compact.

Golden Shower.—A pretty reddish bronze flower with hair-like florets, drooping like a plume; one of the most distinct; December; height 4½ feet.

Sitsujitui.—This is a very curious and pretty flower; colour silvery pink. This plant pays for good culture.

Mignonette.—This variety flowers rather earlier than the others of this section; a thread-petalled flower; colour pale yellow tipped bronze. In favourable weather this plant will flower outdoors in October; height 3½ feet.

Golden Thread.—A rather large golden bronze flower; free blooming; height 4 feet.

White Thread.—This is a pure white thread-petalled flower of dainty form; the plant is free-flowering, and pays for good culture.

Alice Carter.—Another distinct thread-petalled flower; reddish bronze, tipped gold; it is distinctly pretty, and must be well grown to be seen at its best; height 3 feet.

Two pretty spidery singles are the following:

Golden Faden.—Curious though pretty single flower, with long wirelike florets; colour, fawn with chestnut tips; free flowering.

Gold Lock.—Another single flower having long, tubular florets, making a quaint specimen of the single-flowered type; colour, light yellow, tinted apricot.

D. B. CRANE.

Highgate, N.

SPIDERY CHRYSANTHEMUMS.

THERE were more competitors in the class for six bunches of decorative thread-petalled or plumed Chrysanthemums than we have ever seen before at the December show of the National Chrysanthemum Society, held at the Crystal Palace on the 6th and 7th inst. Evidently growers are beginning to appreciate the so-called spidery Chrysanthemums. It was quite a relief to turn from the huge Japanese blooms to



A FINE VARIETY OF VANDA SANDERIANA.

(Exhibited recently by the Earl of Tankerville, Chillingham Castle, before the Royal Horticultural Society. It was given a first-class certificate.)

those of the types under notice, which were represented by beautiful bunches. Disbudding appeared to have been ignored, as the majority of those set up in competition were cut from naturally-grown plants. They are well suited for table decoration, vases, band baskets, &c. They are being added to each season, though certainly not in very large numbers.

D. B. CRANE.



ROSE LEOPOLDINE D'ORLEANS IN ALDERMASTON CHURCHYARD.

NEW AND RARE PLANTS.

A BEAUTIFUL VANDA.

VERY beautiful is the variety of *V. sanderiana* called Chillingham variety; it was exhibited by the Earl of Tankerville, Chillingham Castle (gardener, Mr. G. Hunter), at a recent meeting of the Royal Horticultural Society. This is a very large and richly-coloured form. The upper half of the flower is lilac-rose, and the two large lower sepals are heavily veined with crimson upon a brownish yellow ground. A first-class certificate was given to the variety, and a cultural commendation to the plant, which carried five racemes, and altogether some thirty-five flowers.

ROSE GARDEN.

LEOPOLDINE D'ORLEANS ROSE IN A CHURCHYARD.

ALTHOUGH during recent years the attention of raisers has been towards improving the fast growing or rambling Roses, it is generally conceded that the *Sempervirens* or evergreen group still maintain their proud position of being

the best for producing those splendid masses of blossom as depicted in our illustration. In THE GARDEN of the 9th inst. we illustrated the variety *Flora*, which the authorities at Kew know so well how to grow; and it is well worth a special visit in July to view the fine mass of the same Rose growing in

the dell roserie at these famous gardens. In our illustration we have a picture of one of the best of the evergreen Roses, although not so well known as *Félicité Perpétue*, the Queen of Ramblers. It will be observed how profusely the plant has blossomed, and this is characteristic of the whole of the evergreen Roses. The main point to remember in their culture is to be very sparing with the knife.

Beyond cutting away old wood they may safely be allowed to grow as they like. Should this Rose be grown as a natural shrub it is well to isolate it from other shrubs, and for a year

or two loop up the growths to a stout stake. After this one may leave the plants to their own devices, and as July comes round one may have these splendid floral effects. Upon arches no Roses are more effective, and they are the best companions to plant with Crimson Rambler, as they blossom at the same time. Although termed evergreen Roses, perhaps they are not more so than some other more recent Ramblers. Roses such as Aglaia, Jersey Beauty, Sinica Anemone, Longworth Rambler, Mme. Alfred Carrière, Reine Olga de Wurtemberg, &c., retain their foliage for as long a period, which is frequently well over Christmas. An old favourite Rose for planting in churchyards and cemeteries is Aimée Vibert.

It is rather surprising the evergreen Roses are not more frequently found in gardens growing upon standards, not necessarily very tall, but on, say, 4 feet to 5 feet stems. There is nothing comparable to them for the short time they remain with us. Alternate trees of *Félicité Perpétue* and *Crimson Rambler* would make a splendid show if planted in our public parks or along carriage drives in private establishments. P.

ROSE CRIMSON RAMBLER.

IN the accompanying illustration this favourite Rose is shown trained over a balloon-shaped trellis, which its vigorous growth quickly covered with bright green leaves, and in the season masses of brilliant flowers. The shape of the trellis may be easily seen. In the centre is a strong Oak pole, whose apex overtops the trellis. This consists of iron uprights some 6 feet high before they bend to form the arched top. Strong wires running round the trellis brace it together, and serve as supports upon which to train the growths. *Crimson Rambler* does not find favour with everyone, but when covering a trellis, or arbour, or pillar in the open no other Rose makes a more gorgeous display for the time being. On a wall this variety is useless.



ROSE CRIMSON RAMBLER OVER A BALLOON-SHAPED TRELLIS IN THE ROYAL GARDENS, WINDSOR.

JOTTINGS ABOUT ROSES.

UNDER the heading of "Roses for Autumn Planting," I wrote some criticisms on page 205 anent the prize essay on Roses, published in Vol. LXVII., page 390. It will be remembered that Question I. was devoted to a selection of Roses suitable for bedding, and, as several correspondents have kindly written asking for further information, I propose to redeem my promise and discuss some of the other topics touched upon in the essay. I will commence with Question III. Give the names of six Roses, rapid climbers, best adapted for climbing into old trees, and state method of planting and pruning for first year. — Answer. 1, *Alister Stella Gray*, N.; 2, *Dundee Rambler*, Ayrshire; 3, *Ruga*, Ayrshire; 4, *Félicité Perpétue*, Evergreen; 5, *Gracilis*, Boursault; 6, *Dawson Rose*, Hybrid Polyantha.

Alister Stella Gray.—The first-named variety is an exquisite Rose, quick growing, and always in flower; in fact, its merits are many and its defects extremely few. But I would warn intending planters that it cannot be reckoned among the hardiest, and in this garden we are obliged to give it the shelter of a wall. The term *Noisette* appears to be very loosely used at the present day. It used to be applied to a race of Roses which were really very hardy; but nearly all the old race of *Noisettes* have passed away, and the varieties now placed under this heading (e.g., *William Allen Richardson*, *Celine Forestier*, *Solfaterre*, *L'Idéal*, &c.) are all hybridised with the Tea-scented varieties. I do not pretend to be acquainted with the parentage of *Alister Stella Gray*—some say it is of Musk origin—but I presume it has Tea-scented blood

this latter in vigour and effect. If this be so it should be well worth growing. *Flora* is a variety far too little known. Here it is never injured by frost, and flowers freely upon a north wall. It is always rather a surprise to me that a hardy Rose such as this should be passed over in favour of the Boursault varieties, which, in my opinion, are all manifestly inferior to it in beauty. Anyone who has visited Kew Gardens when the summer-flowering Roses are in full bloom will recollect *Flora* as one of the most attractive of them all. It belongs to the *Sempervirens* or so-called Evergreen section, as also does

Félicité Perpétue.—This latter is a splendid variety, which is quite at its happiest when rambling up an old tree, and is always worth a place in the choicest collection. There seems to be some doubt as to the correct way of spelling the name of this Rose, and I well remember reading a discussion somewhere in reference to this in one of the horticultural journals, but cannot now recollect what decision was eventually arrived at. On the Continent, as in England, there are diverse ways of spelling it, but many good authorities concur in writing it *Félicité et Perpétue*. Mr. William Paul, however, in "The Rose Garden," adheres to the more generally adopted way given at the head of this note. This Rose was raised from *Sempervirens* major as far back as 1828 by M. Jacques, head gardener to the then Duke of Orleans at the Chateau de Neuilly. It is supposed that he named it after two Christian saints who were fast friends and suffered martyrdom together in the amphitheatre at Carthage, A.D. 203. More than three-quarters of a century have elapsed since this fine old Rose was given to the world, and yet we have nothing that can out-distance it for all-round usefulness and beauty. Of the

Boursault Roses, I like *Inermis* Morletti even better than *Gracilis*. This latter is a good variety, but is not so pleasing in colour as the former. As a general rule the Boursaults are thornless, but in the case of *Gracilis* this is not so, as its wood is set with long thorns. The foliage, too, is of a deeper shade of green than any of the other Boursaults. Both have finely coloured bark, which is singularly ornamental when they are leafless, and both are strong climbers; of the two, *Inermis* Morletti is perhaps the most rampant. It is almost needless to add that both are very hardy,

and will thrive in almost any position. Although most, if not all, of our English catalogues give the year 1883 as the date when *Inermis* Morletti was introduced, it is really a much older variety, having been grown in France for a great number of years under the name of Mme. Sancy de Parabère, sometimes written Mme. de Sancy de Parabère. As far as I am able to ascertain it was raised by a Frenchman named Bonnet, and distributed under this latter name by F. Jamain in 1875. It was not until after Morlet, a French rosarian, found it in Bonnet's old garden and rechristened it *Inermis* Morletti, that it was found to be none other than Mme. S. de Parabère.

ARTHUR R. GOODWIN.

(To be continued.)

GARDENING FOR BEGINNERS.

SIMPLE HINTS.

FORMING AND TRAINING GOOSEBERRY BUSHES.—Suppose that the prepared cutting has passed safely through the winter and that the buds have pushed into growth. Four or five buds may have been left at the apex of the cutting; it is therefore safe to assume that three of them have commenced to



GOOSEBERRY BUSH, SHOWING FIRST BRANCHES.

{(Cross lines indicate where to cut back to at winter pruning.)}

grow. If such be not the case the cutting is not worth keeping. The object of removing the lower buds in preparing the cutting, besides guarding against suckers, was to obtain a clear stem of several inches between the ground and the lowest branches of the bush. Allow the shoots that will develop from three of the buds upon the upper end of the cutting to grow freely throughout the summer, and also laterals that make their appearance. In early winter prune the three principal shoots back to about 6 inches in length and cut all the laterals to within half an inch of the base. The following spring two shoots should be allowed to develop from each of the three primary branches that were shortened in winter. At the close of the second summer there will thus be six branches. Next winter shorten these also to within about 10 inches of their bases. In spring encourage two more shoots from each of the six branches, thus making twelve in all. The Gooseberry bush will then have a good foundation. When, afterwards, other branches are allowed, if there is room for them, be careful that they do not originate from buds pointing downwards or inwards, or they will defeat the object of the cultivator, which should be to keep the branches thinly disposed, so as to admit all sun and air possible.

Early Gooseberries.—A week or even a shorter period, in point of earliness, is very important to the market grower, and it is worth consideration by the private grower. As this is the season for planting it may be worth mentioning that May Duke is the earliest Gooseberry yet introduced, Industry comes next, and Berry's Early Kent is close up. These three varieties would pay to plant in quantity, and, if planted in an enclosed wire station, there would be no trouble from birds.

Training Fruit Trees on Walls.—For Pears, where the wall space is limited, the oblique two-branched cordon offers some advantages. Planted from 2 feet to 2½ feet apart, the wall is soon covered, and more variety can be planted than if larger trees are planted. There is an advantage in being able to grow a dozen or more kinds of Pears when required for home use, and

the trees are so easily managed and trained, and a wall covered with well-trained cordon Pears is always pleasant to look upon. The Palmette Verrier system of training comes next, and is adapted for larger trees, and I have used it not only for Pears but for other fruits, such as Apples, Cherries, and Plums. It is a combination of the horizontal and vertical—the branches are taken out a short distance horizontally and then taken up vertically.

Using Stimulants Under Glass in Winter.—We give stimulants at all seasons to plants which have filled their pots with roots and are forward for flowering. There are many plants which flower naturally in winter, and these want help in their period of greatest activity as well as those plants which flower in summer. Bulbs, for instance—take the Narcissus family, which are very strong rooting—the flowers are now within the bulbs, and their size and brilliancy depends upon the nourishment given. In forcing the usual course is to plant somewhat thickly in boxes or in pots varying in size from 5 inches up to 8 inches or 9 inches. For the conservatory we generally fill large pots, as half-a-dozen or so when in flower form a group which can be seen.

The Christmas Rose.—I think the beginner would be interested in raising seedlings first; to save seeds the plants should flower indoors. The beauty of the Christmas Rose is in the purity of its flowers. If there are nice clumps they may be lifted without disturbing the roots much and placed in pots any time before the flowers open. If the flowers are wanted for cutting, to keep them fresh in winter they must be covered in some way. I know a cottage garden where there are numerous clumps growing among the Gooseberry bushes, and these and leaves which drift up around them afford the necessary shelter. The cottager makes a nice little sum every winter by the flowers. The best variety—and there are several—is *Helleborus niger maximus*.—H.

Protecting Materials and their Uses.—In districts where the common Bracken grows freely the stems cut before their fronds die so that they retain their toughness and elasticity are capital for affording shelter to any plant which requires protection, as they protect without altogether excluding the air. In some cases it may suffice if twisted round the base of the plant projecting over the soil, enclosing the roots at the bottom. Where Bracken is used intelligently the necessary shelter can be given without weakening the buds. Rushes, where obtainable, are also useful for protecting delicate or tender plants and newly-planted shrubs. Mulching with burnt earth or charred garden refuse will often save life, especially in the case of such things as Passion-flowers and choice Clematises, and these and similar things are more liable to suffer when recently planted than when the roots have obtained a firm grip of the soil.

Plants in Cold Frames.—If tender plants must be kept in cold frames it is comparatively easy to keep out frost by using heavy coverings and banking up the woodwork of the frames with dry litter, but the difficulty to contend with is damp in the frame. When the pots are standing on a dry bed of ashes and the plants kept dry I have had tender things covered up for a month at a time during frosty weather without injury. Such things as *Calceolarias*, hybrid *Lobelias*, *Echeverias*, and early-struck cuttings of *Geraniums* and anything of similar hardiness were safer in cold frames when kept dry. The frames

were opened occasionally and everything in the nature of decay removed, and if a spot of damp appeared anywhere it was neutralised by scattering a few dry wood ashes or dry dusty peat over the spot.

Manuring Asparagus Beds.—This is a common practice, and is generally beneficial, especially on dry, sandy, or light land; but on heavy land it is sometimes harmful and keeps the sun off the beds or rows and lowers the temperature, and may lead to decay in the roots—at any rate, it delays root action. On heavy soil, if top-dressings are required, work the manure into a compost mixed with wood ashes and charred refuse, adding a little artificial manure, such as basic slag or superphosphate, and, during growth, nitrate of soda will be useful. Salt is useful on dry, porous soil, but on heavier land something with more force and life in it will be more suitable.

Seedling Potatoes, first year.—One specially interesting feature of the Potato show was the many seedlings shown. I do not think it was generally known that you might sow seeds of Potatoes in April and dig Potatoes from them the same season as large as good-sized hens' eggs. Not only one or two but several of our largest Potato raisers had numbers of exhibits showing what can be done with seed in one season. Of course, the seed had been sown under glass and the seedlings were advanced in growth when planted out, and no doubt the best culture and stimulating manures had been given. There is no doubt that change of seed does add to the weight and bulk of the crop. All Potato sets should be placed singly, crowns upwards, in shallow trays to develop the crown eyes.

Winter-flowering Shrubs.—The list is not a long one, but anything which flowers outside in winter is appreciated. The naked flowered Jasmine (*J. nudiflorum*), now just opening its



GOOSEBERRY BUSH, SHOWING SIX BRANCHES AT END OF SECOND YEAR.

blossoms, is very pleasant to look upon, and it will flourish on the north side of a wall, and in such a position the frost has less effect upon the blossoms. Just now also the Japan Allspice *Chimonanthus fragrans* is very sweet, and a w flowering sprays in the room will give off their spicy fragrance. This shrub is generally grown against a wall, though it will form a spreading bush in a sheltered place anywhere. It is a difficult thing to propagate from cuttings, but may

be increased by layers. The Laurustinus is a well-known winter-flowering shrub. The Bush Ivy also flowers in winter, and these may be had in some variety and make handsome groups on the lawn.

Orchid Growing for Beginners—Many lovers of Orchids are prevented from attempting their culture on the ground that they are an extremely difficult class of plants to manage, require special houses, and very special treatment in order to succeed with them. This certainly holds good with many kinds; but, on the other hand, there is a large number which require very simple culture, and included among them are some of the cheapest and most beautiful. In beginning their culture the first important matter for consideration is the

Structure in which they are to be grown. If a new one is to be built, the most suitable dimensions for it, and if one already exists, how best it can be made to fulfil their requirements. A span-roof structure in a good light position is the most desirable, and if it is intended to build one, a width of 10 feet inside is suitable, as this will allow of stages on either side 3 feet 6 inches in width, and a central path nearly 3 feet wide. The walls should have movable ventilators fixed at intervals, as in this way the heat from the hot-water pipes can be toned down if necessary, and if the walls are made 3 feet 6 inches high space is left for upright sashes 18 inches high on the top, which, with 6 inches allowed for the plates in addition, will give a height to the eaves of 5 feet. If the height to the apex of the roof is 9 feet, this will allow the roof itself to be at an angle of about 45°, which is sharp enough to give but little drip. The stages may be made of slates supported by T irons, as it is quite imperishable. On this must be put a coating of some material to hold the moisture, a necessary feature in Orchid growing. Fine coke is used by many, as it is of a porous nature and holds the water well, but small shingle is also very good. The plants must not be placed directly on this material, but either raised on inverted pots or a false stage made about 6 inches above the other. This will allow of the shingle on the lowermost one to be readily damped, which could not be done if the plants were stood directly on it.

Ventilation may be effected by hinged sashes at intervals along the apex of the roof, and shading by roller or lath blinds is essential. Three pipes 4 inches in diameter on either side of the house will give plenty of heat, as it is better to have the pipes warm than very hot, the excessive heat in this last-named case being decidedly injurious. The above details as to house building may appear somewhat too minute, but it will be found admirably suited for the purpose; still, where there is an ordinary greenhouse at hand, it may with a little alteration be made very suitable for the less fastidious kinds of Orchids. The side lights will not need to be opened, the stages may with little trouble be altered as above advised, and for intermediate house Orchids, which can be recommended with most confidence to the beginner, three pipes on either side will be needed.

Temperature.—Though some cool and some hot-house kinds of Orchids are easily cultivated, the two cannot be grown successfully in the same structure, and where the beginner starts with a single house those needing an intermediate temperature give, we think, the greatest variety. In this, which is often spoken of as the Cattleya house, a minimum winter temperature of 50° should be maintained, running up with sun to 10° or 15° more. As the season advances the normal rise in temperature will, of course, be made.

(To be continued.)

Seed Potato-box.—The best and simplest method of preserving seed Potatoes satisfactorily

is to have shallow trays or boxes made from thin boards. These may be but 4 inches deep inside, and be of such sizes as may be preferred. Those of 14 inches by 18 inches hold quite a large number of seed tubers, which should be stood in the boxes with their shoot or bud ends upwards, and close together. If a strip of stout wood be fastened to each end of the box to form a handle, a great convenience for moving and planting is furnished. These boxes may be stood in quite a cool, airy place during open weather, and be stacked close together and covered up, or removed into a less cold position when frosts threaten. It is difficult to overestimate the value of such treatment meted out to seed tubers, as the crops from such cared-for sets are usually double in



SEED POTATO-BOX.

bulk to those that result from badly wintered tubers, especially as bad storing always tends to weaken the stock.

GARDENING OF THE WEEK.

FLOWER GARDEN.

THE short sunless damp days of this season of the year necessitate frequent looking over tender bedding plants under glass for damping is prevalent, so that it is advisable to pick off every dead leaf and shoot. Mildew is also a great scourge, and must be kept under by repeated light applications of sulphur, &c. Carefully look over Geraniums daily for caterpillars, for these quickly damage a number of plants if not destroyed. Fumigate occasionally to destroy and prevent aphids, thrips, &c., for no plant will thrive while overrun with these pests. Also keep a sharp look-out for snails, slugs, and mice, for they will soon work havoc among tender plants. Aim at cleanliness in the plants and their environments. Houses, pits, and frames containing bedding plants should be ventilated according to the degree of hardness of the occupants, doing everything possible to promote a firm sturdy growth. Look over Echeverias in stacks and facing walls or fences, picking off dead and decaying matter from around the necks. In beds occupied by

CONIFERS AND EVERGREENS for winter effect, cavities formed through the swaying of the tops should be filled with soil, pressing it about the roots and stems. Any mulching disturbed by birds amongst spring-flowering plants and bulbs should be replaced. Cut down old flowering stems of herbaceous plants, forking the soil lightly amongst them.

WALKS.—The present is a most favourable time to overhaul existing walks and to form new ones where necessary. Clear the drains of sediment, and see that all are in thorough working order, with an uninterrupted fall to the outlets, which should also be free of all accumulations. Level all irregularities, and where necessary gravel the whole surface afresh, rolling frequently in all but frosty weather, and if not sodden (which good walks never should be) apply "Climax" Weed Killer, for it is much more efficacious, besides being more economical, applied while walks and drives are moist than when dust-dry.

MAKING NEW WALKS.—Where new ones are contemplated mark them out, shave off the turf, excavate the soil (depth in accordance with the width), sloping from edges to centre, thus forming a drain. Take levels accurately, so that a fall is assured. Decide on positions of grids, and lay them down with pipes leading to the drain in the centre of the walk, where either pipes or stones (a rubble drain) are laid. Next fill in with any rough materials available to within a foot or so of the surface. On this lay 8 inches of evenly-broken granite (macadam), levelling it carefully to prevent inequalities later, and surface with 2 inches or 3 inches of clean fine gravel or granite chips. Then give a thorough soaking of water, roll until it is solid and the surface perfectly smooth and hard. Where preferred to have the gravel loose omit the rolling. When finished the walks should be from 1½ inches to 2 inches below the edgings. Bear in mind that for walks

and drives improperly constructed at the outset, no amount of after attention will make them quite satisfactory.

JOHN ROBERTS.
The Gardens, Tan-y-bwlch, North Wales.

INDOOR GARDEN.

CODIÆUMS (Crotons).—Cuttings of these may be inserted in a propagating frame with a brisk bottom-heat. Use the weaker growths and side shoots for cuttings and ring the vigorous. Plants suitable for table decoration can be obtained by the latter method in a relatively short time.

CORDYLINES (Dracenas).—Leggy plants of these may also be rung. When rooted cut off and place in small pots. The old stem can be shaken out and placed in cocoanut fibre, either as it is or cut up into pieces, when young growths will push from it. The root growths, often termed toes on some varieties if cut off, soon grow into nice little plants. Green varieties can soon be increased in this way, but when dealing with highly-coloured varieties, Cooperi for instance, the best coloured plants are from tops.

CHRYSANTHEMUMS.—Propagation of these is still proceeding. Stools of varieties which are shy in producing cuttings should be shaken out and repotted into small pots, using a light soil. Put them in a warm greenhouse to encourage growth. The late varieties are still a prominent feature in the greenhouse and conservatory. If I were asked to name the most useful variety either for decoration or as cut flower I should undoubtedly say Niveus. It lasts such a long time in flower.

FUCHSIAS.—Start a few old plants in heat of varieties of which more stock is desired. Look over the plants stored away to see what condition they are in. Water them if the soil is becoming too dry. Encourage the growth of the young plants rooted from cuttings in the autumn. Give each plant a neat stake. Do not top them unless very short plants are required, such as would be used for baskets.

SALVIA SPLENDENS.—What an acquisition this plant has proved for the greenhouse in winter. There are now a number of varieties. Select each year several of the best plants for cuttings. The variety grandiflora has long flower-spikes, and is one of the best for general use. As a dwarf variety Fireball is useful, and comes into flower early. Cut the selected plants back to obtain a supply of cuttings. Cyclamen from seed sown last September are ready for potting off into small pots. Start a few tubers of Gloxinias and Begonias in shallow boxes, filled with leaf-soil and sand, half covering the tubers. Give them a temperature of 60° to 65° Fahr. Seeds may also be sown if it is desired to flower the plants the first year.

FRAMES.—During severe frosts the cool pits and frames should not be uncovered. They will not harm if covered up for a week or more provided the plants are not in flower. When a thaw sets in take off the covering and give the plants air. If they have been covered up for some days this must be done gradually. Push forward the cleaning of the plants and houses. With the turn of the year there will be plenty of propagating and potting to attend to. Limewash the walls of the houses.

Royal Gardens, Kew.

A. OSBORN.

FRUIT GARDEN.

MELONS.—To obtain ripe fruits at the end of April or early in May a batch of plants should be raised at once. A free setting, reliable variety should be selected for early work. Frogmore Orange and Hero of Lockinge may be relied on for this purpose. Sow the seeds in 2½-inch pots, using loam with a good sprinkling of finely broken mortar rubble mixed with it to keep it porous. The compost must be nicely warmed before sowing the seeds. It is a good plan to sow two seeds in each pot, discarding the weaker plant later on. Plunge the pots in a moderately warm bottom-heat or a large number of the seeds may not germinate. A house must be prepared ready for receiving the plants as soon as they are large enough for planting. The interior of the house should be thoroughly cleaned, saturating holes and crevices, or anywhere where vermin can secrete themselves, with boiling water to destroy them, or they will give a lot of trouble later on, when such vigorous measures cannot be used. Afterwards limewash the walls. The material for forming a hot-bed should be collected and prepared, stable litter and leaves will be suitable. It should be turned several times to allow rank gases to escape. Good fibrous loam will make a suitable rooting medium, but if it is of a retentive nature a good sprinkling of old mortar rubble will be of benefit. The bed should be raised as near the trellis as possible, so that the plants receive full benefit of light and sunshine.

CUCUMBERS.—No time should be lost in raising a batch of plants to replace old and exhausted ones. The advice given for sowing Melon seeds may be applied here, except that the soil should consist of loam and leaf-soil in equal parts. It should be in a condition so that no water will be required until the seeds have germinated. Prepare the house and hot-bed as advised above, planting the young seedlings out in mounds of fibrous loam as soon as they are fit. Assuming that old plants are clean, and not too exhausted through over-cropping, they may still be encouraged to give a few fruits, which are always welcome, as salads are so scarce at this time of year. Keep the roof glass clean, and the growth trained and regulated so as not to exclude light. The night temperature may range from 65° to 70° according to the weather. Admit air at the top of the house when favourable opportunities occur, but close the ventilators while the sun is full on the house.

TOMATOES.—The conditions have been very favourable for the young plants which were raised in October, and they will be ready for their fruiting pots early in the New Year. Seeds may be sown now for succeeding this batch. Frogmore Selected and Winter Beauty are reliable sorts

for early work. The winter fruiters are doing remarkably well this year. The later fruits may be encouraged to swell by top-dressing with a little fresh soil whenever roots appear on the surface. An occasional sprinkling of Le Fruitier, too, will be of benefit. E. HARRISS.
Fruit Department, Royal Gardens, Windsor.

ORCHIDS.

CYPRIPEDIUMS.—In the intermediate house there are many *Cypripediums* now in bloom, including *C. spicerianum*, *C. fascinator*, *C. Memoria Mensii*, *C. Salierii*, *C. hyeanum*, *C. arthurianum*, *C. Acteaus langleyense*, *C. Creon*, *C. euryades*, *C. M. le Curte*, many varieties of *C. leeanum*, including the rare *C. l. clinkaberryanum*, also numerous varieties of *C. insignis*, as *C. i. Sandere*, *C. i. Harefield Hall*, *C. i. punctatum violaceum*, *C. i. montanum*, &c. All of these cool growing *Cypripediums* should be largely grown, the handsome flowers last a long time in bloom; they are very useful for house decoration, the majority are easily grown. After the flowers are cut keep the plants rather drier than usual for a few weeks, when if any of them require repotting, or it is found desirable to increase the stock of any particular variety by dividing the plants up into small pieces, they should be attended to. In repotting the plants do not raise them above the rim of the pot, but keep the compost just below it. *C. spicerianum* is the only exception. I find that this species grows better when raised a little above the rim. The pots should be well drained, using rough peat, fibrous loam, and sphagnum moss in equal parts. After repotting stand the plants in a shady part of the intermediate house, afford only very moderate supplies of water as each plant becomes dry, and when properly rooted in the new soil and growing freely give water liberally. The old *C. caudatum* and its variety *Wallisii* have, unfortunately, become rare plants in cultivation; they are seldom seen. Those who possess plants of this species will see that they are now producing young growths, and will soon be showing their flower-spikes. Give them plenty of water at the root, and keep them in the intermediate house the whole year round. See that no water lodges in the centre of the young growths, as they are liable to decay if it is allowed to remain there. In the cool house plants of

LYCASTE SKINNERII and its varieties are now fast finishing up their growths and sending up flower-spikes. While growing *Lycaestes* require plenty of water at the root, and at this particular time give a little weak cow manure water at each alternate watering. After the flowers are cut and the plants are at rest they must not be allowed to shrivel for want of water. The best time to repot *Lycaestes* is soon after growth recommences. Water must be given less frequently to *Lycaeste cruenta*, *L. Deppel*, *L. costata*, *L. Barringtoniae*, *L. leucantha*, *L. macrobulbon*, and *L. aromatica*. *L. lanipes* is a plant well growing. The white flowers shaded with green are delightfully scented during the night.

THE SABRALIAS are now in active growth, and if the plants have become crowded with old flowering stems some of these should be cut off to the base. The new shoots may then be tied out clear of each other so that light and air may pass freely between them. All pot-bound plants should at once have a liberal shift, or large specimens that require dividing should be attended to. Avoid dryness at the root at any time.

LELIA RUBESCENS (acuminata) is a dwarf compact-growing species. There are two distinct varieties of this plant now in bloom at Burford, one with white flowers, the other a lovely tint of soft rose colour, both having a dark maroon spot or blotch at the base of the lip. It is a Mexican plant, but I find it thrives best when suspended in a light airy position in the warmest house. After the flowers fade the plant will be at rest, and the cooler atmosphere of the Mexican or intermediate house is preferable for them. The plant is best cultivated in shallow pans, and will root freely in the ordinary Orchid compost.

Burford Gardens, Dorking.

W. H. WHITE.

KITCHEN GARDEN.

FORCED VEGETABLES.—Vegetables from the outdoor garden are now limited to the Brassica family and one or two kinds of roots; and in order to keep up supplies every effort must be made to produce as much as possible from the forcing quarters. Asparagus must receive careful attention in the way of being watered when necessary with tepid water in which a pinch of salt has been dissolved; a tablespoonful to 3 gallons of water is sufficient, the temperature of the water to be a few degrees higher than that of the forcing house containing the Asparagus. Fresh supplies of roots must be introduced according to the demand. Seakale that was moved into forcing quarters some time ago has been yielding good supplies; the roots still in the open will now start more quickly into growth than those first put into heat. Fresh batches of the Seakale roots should be brought in at regular intervals, according to demand; spaces between hot-water pipes and brick walls answer very well when better positions are not available, the space to decide whether pots or boxes shall be used.

THE MUSHROOM HOUSE has also to do duty in bringing on supplies of forced Seakale; they may not come on so rapidly, but as a rule they prove the plumpiest and the best if light has been thoroughly excluded. To keep up good supplies of

RHUBARB quantities of roots with not less than three plump crowns must be placed where a good command of heat can be obtained. Place some fine soil around and amongst the roots, water well, and exclude light until

they are fairly into growth, then light may be admitted by degrees, as it is supposed to have a beneficial effect on the flavour, but the admission must be gradual.

SALADS.—These being so essential for the table every effort should be made to preserve those growing until they are to be blanched, then blanching only those required so as to keep up a regular supply. The Mushroom house is a first-rate place for blanching Endive, and fresh supplies should be introduced into it weekly or bi-weekly, so that a steady supply may be forthcoming. Endive plants in cold pits or frames require to be occasionally examined to ascertain if there are decayed leaves to be removed. Slugs have also to be looked for, especially during open weather.

CHICORY may be had in abundance between this date and the time when it runs naturally to flower. The roots of Chicory are easily grown and blanching, so that very little difficulty is experienced in having large and constant supplies. Lettuces in frames and other shelters must have abundance of air on all favourable occasions. Those growing by the base of walls and on sheltered borders must be examined also; weeds and slugs must be searched for during fresh weather if they abound. Mustard and Cress is easily and quickly grown in either box or border that contain a light rich soil where a temperature from 50° to 60° can be had.

DIGGING, trenching, wheeling on manure, keeping garden paths tidy, &c., is about all that can be done on vegetable quarters at present, and no time should be lost in attending to these items. Consideration should also be given to the arrangement of the crops for next year, so that the ground may be prepared accordingly, the old axiom being kept well in mind—dig deep and manure well.

J. JEFFREY.

The Gardens, St. Mary's Isle, Kirkcudbright.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, W.C. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

Legal Points.—We are prepared to answer questions of law which have anything to do with the subject of gardening and forestry. The questions should be as clear as possible. Answers will be found in a separate column headed "Legal Points."

FLOWER GARDEN.

PLANTING GARDEN (E. A. B.).—In beds 1 and 2 we should certainly plant dwarf Roses of such free-flowering sorts as *Corallina*, *Grües* an *Teplitz*, *Viscountess Folkestone*, *Caroline Testout*, and others. Several lists suitable for your purpose have been given lately in THE GARDEN. We should fill the long bed by the north fence with hardy herbaceous perennials, making, in fact, a mixed border of it. In the one which is damp and rather shaded plant Japanese *Anemones* (pink and white), *Lobelia fulgens*, and *Lobelia cardinalis* (scarlet), *Lilium tigrinum*, *Lilium auratum*, *Lilium speciosum* in its several varieties, and *Day Lilies* (*Hemerocallis*). The climbing Rose will doubtless flower next year. Do not prune the long growths it has made. The Dutch Honey-suckle would be suitable for the arch, or *Clematis Jackmani*. Possibly the *Gloire de Dijon* Rose is in too rich soil; do not manure it. Do not cut back the *Crimson Rambler* shoots until they have flowered; this flowers on last year's wood. Cut back *La France* to within 1 inch or 2 inches of the base; it flowers on the current year's growth. Roses planted last spring could not be expected to flower much this year. You could form weeping standards with *Dorothy Perkins*, *Alberic Barbier*, *Bennett's Seedling*, and other such Roses.

PLANTING SMALL BORDER (Sparham Camp).

—With reference to the border you wish to plant, you must remember that if you grow tall plants in front of the fence there are not many climbers you can grow; if the fence were an open one it would be a different matter. We should advise you not to cover the fence altogether, but to plant Ivy here and there to relieve the bareness. Moreover, as your border is only a yard wide, you cannot crowd too many plants into it. You should grow a good collection of herbaceous perennials, placing the taller ones at the back, such as *Helianthus*, *Galega*, *Delphinium*, *Lupin*, *Hollyhocks*, *Golden Rod*, *Campanulas*, *Aconitum*, *Michaelmas Daisies*, &c.; towards the front you should have *Phlox*, *Irises*, *Carnations*, *Lychnis*, *Canterbury Bells*, *Coryopsis*, *Gaillardia*, and many more; at the edge you might have *Thrift*, *Pinks*, *Violas*, *Saxifraga umbrosa* (London Pride). Plant in clumps, allowing plenty of space between them. You should also sow clumps of annual flowers between perennials.

FLOWERS FROM SEED (W. J. Payne).—The botanical name of London Pride is *Saxifraga umbrosa*; this plant will grow almost anywhere, but does best when grown in a soil largely composed of leaf soil and in a half-shady position. When the plants are getting worn out you should take up the tufts and divide them. You may also easily increase it from seed. London Pride is a most useful edging plant; it is found wild in Ireland. *Verbenas* may be easily raised from seed. You may sow the seed in January, February, or March; by doing this you will have a succession of plants in flower in summer and throughout autumn. If you sow in the earlier months, you must, of course, sow under glass in heat; in March you may sow the seed out of doors. *Verbenas* like a rich and sweet soil, and before planting out the seedlings, you should thoroughly dig and manure the ground. *Verbenas* are often spoilt through the seedlings being kept too long under glass. You should grow them as hardily as possible.

CARNATION GRASS (Dunruadh).—The "snips" of Carnation leaves sent had no disease upon them. Some dirt was attached to the small pieces of leaves, caused doubtless by green fly. You should fumigate to destroy this pest. Rust can easily be detected; it first appears in the form of a blister on the leaves, less frequently on the flower stems; in a little time the growths within the leaves burst through the membrane and the spores of the fungus are scattered. If the leaves with the disease are cut off before it bursts through the membranes it can be exterminated.

PLANTS NEAR TREE (M. K.).—If the piece of land is not overshadowed by the Cypress, and you were to dig it up and enrich it with well-decayed farmyard manure, you could grow ordinary border plants, such as herbaceous perennials or even Roses. If, however, the roots of the Cypress tree render this impossible you might try *Hypericum moserianum*, *St. John's Wort* (yellow flowers, summer), *Rock Rose* (*Helianthemum*), a plant that likes a dry, sunny place, *Gorse*, *Broom*, *Arabis*, *Verbascum*. Why not sow some annuals? That method would, perhaps, give you more flowers than any. If you wish to succeed with Ivy-leaf Geranium in such a position you must give it a fairly good soil and water abundantly, otherwise it will not grow in summer. *Salvia patens* would be unsuitable. The most suitable plant for the fountain bed would be the Cape Pond Weed (*Aponogeton distachyon*), which is hardy.

ROSE GARDEN.

PRUNING ROSES (Sparham Camp).—The time to prune your Hybrid Perpetual Roses is towards the latter end of March. As you have only just planted them, you must cut them hard back in the spring—that is to say, within a few buds of the base of each shoot, and shorten the shoots now about one-third. Unless you do this their growth will be poor and unsatisfactory. You cannot have all your Roses of a uniform height when they are in flower, because some varieties are stronger growing than others. However, they will be about the height you require when in flower. As the blooms are produced on the current year's growth it would be useless pruning them to 18 inches high for your purpose, because, naturally, the resulting shoots would grow still higher before they flowered.

CUTTING BACK CLIMBING ROSES (G. G. S.).—The sentence referred to, i.e., "When you plant the young climbing Roses, cut them hard back to within, say, their lowest buds," may be taken to refer to all young climbing Roses. It is far the best thing to do, when you plant young climbing Roses, to cut them hard back in spring. You then get much stronger growth, and so lay a good foundation. We planted some Dorothy Perkins last autumn with growths some 6 feet or 8 feet long. Not wishing to be altogether without flowers this summer we cut back all the shoots except two. The two which were left flowered fairly well, and as soon as the flowers were over we cut them out. You can either do the same with your plants or cut down all the shoots. The latter is really the best thing to do. Unless young newly-planted climbing Roses are cut hard back in the spring the resulting shoots are usually weak, and flower unsatisfactorily.

PRUNING NEGLECTED RUGOSA ROSES (A. H. W. D.).—In most gardens the Rugosa Roses have one great fault, and that is over luxuriant growth. The best course to adopt in regard to the type and the single white is to cut them down hard each year. This will not check the blossoming at all, but instead of this the quality both of blossom and fruit will be superior. There may be too many shoots spring up, but this, of course, is always remedied by judicious thinning. The pruning should be done quite early in the New Year, even in January if the weather be not frosty.

R. H.—Some varieties of Roses, such as Frau Karl Druschki, make an enormous shoot the first year; if it is not stopped in the autumn it will have attained a height of 5 feet to 6 feet perhaps, and at its extreme end a blossom is produced. As soon as growth is arrested in this way the plant commences to send up new shoots around this strong main shoot. This will explain the appearance of the plants you mention. They certainly are not grafted upon the plant. We prefer to stop these young plants when about 3 inches high, then instead of the one strong shoot we have three or four moderate growths, which are to be preferred.

TREES AND SHRUBS.

STARVED SHRUBBERY (B. O. A.).—The reason for the shrubs having so starved an appearance is caused, without doubt, by the proximity of the large Elms and other trees. They rob the ground so effectually for many yards round that it is simply impossible successfully to establish a shrubbery anywhere near them. A good dressing of well-decayed farmyard manure dug into the ground round the shrubs this winter would, no doubt, strengthen them considerably, and a better growth would follow for a year or two, and if anything like a decent permanent shrubbery is to be hoped for under such conditions, the application of manure must be persevered in annually. Even then the Elms will have the lion's share of the manure. It would be useless expense to apply artificial manure under such conditions.

S. H. O'Grady.—With but two small sprays to work upon it is quite impossible to say which represents the best type of Scotch Fir, and their relative value depends, of course, upon the condition of the plants, particularly as regards their roots.

B. O. A.—The true garden Box (*Buxus suffruticosa*), which is so commonly used for garden edging, is very slow growing, but it will form a hedge about 2 feet high in course of years. The common Box tree (*Buxus sempervirens*) is more suitable for planting as a hedge, as it grows much faster. It will form a hedge from 3 feet to 4 feet high within a reasonable time. There are numerous forms of this Box, all equally suitable for hedge planting, the green, the silver, and the gold foliaged varieties.

ORCHIDS.

CYPRIPEDIUMS (W. M. D.).—In addition to those Cypripedium insigne you have already, you would find the following all good: C. i. The Queen, C. i. Mrs. F. L. Ames, C. i. formosum grandiflorum, C. i. leopardinum, C. i. Mr. Fletcher, C. i. Mr. Godeff, C. i. Standard, C. i. atratum, C. i. George Corser, C. i. Commander-in-Chief, C. i. Magnificence, C. i. tigrinum, C. i. Portia, C. i. Agathæ, C. i. Mr. Budgett, C. i. Mr. Pearce, C. i. Bronze King, C. i. montanum splendens, C. i. montanum magnificum, and C. i. montanum Cypherii. All the above are spotted and blotched varieties. Yellow varieties are C. i. Sandersæ and sanderianum (the two best),

C. i. Laura Kimball, C. i. youngianum and varieties, C. i. Ballia, C. i. Ernestii, and C. i. Dorothy.

Curious.—The Butterfly Orchids (*Oncidium Kramerii* and *O. Papilio*) will grow in a light position in the intermediate house, and will thrive equally well either on a bare block of wood or with a little peat and sphagnum in which to root, in pot or basket.

Gardener.—*O. citreolum* is one of the most beautiful Mexican *Odontoglossums*; its long, pendulous racemes of flowers, which vary from white to pale rose and lilac being very attractive. Owing to the drooping inflorescence this plant should be grown in a basket; then the flowers are shown off to the best advantage. It needs only a very shallow compost, which should consist of equal parts of peat and sphagnum moss. The best time to rebasket is as soon as the flowers have faded.

THE GREENHOUSE.

GINGER LILY (H. D.).—It is always a risky matter to name any plant from a single leaf, but we have little doubt that your Ginger Lily is *Hedychium coronarium*. It is a native of the East Indies, and was introduced in 1791. It belongs to the natural order Scitamineæ, popularly called Ginger Worts, and includes among its allies the true Ginger (*Zingiber*), *Maranta*, *Alpinia*, and *Canna*. Nearly all the members of this order need liberal treatment, and the *Hedychium* in question forms no exception to the rule. Now, as you say, it shows signs of going to rest, the water supply should be lessened, but it must not be parched up altogether. With this treatment the present stems will, in all probability, die down, but the plant should, in the spring, start into growth. About the end of February it should be repotted or put in a tub, say, one quite 16 inches in diameter. A suitable compost is two parts good turfy loam, one part leaf-mould, one part well-decayed cow manure, and a little sand. As the plant needs copious supplies of water when growing freely see that the drainage is effective. Keep in a light position in the temperature named by you.

J. G. G.—Some of the best climbers for your purpose would be *Solanum jasminoides*, *Clematis indivisa lobata*, *Abutilon* *Boule de Neige* and *Canary Bird*, *Fuchsia General Roberts*, *Lasandra macrantha*, and *Streptosolen Jamesoni*.

FRUIT GARDEN.

PEARS CRACKING (M. Pryce).—May frosts are often responsible for this deformity in Pears, some portions of the surface of the fruit being frozen and other parts not. The frozen part refuses to swell to the same extent as the uninjured part, hence the cracking as growth takes place. Another cause is that the roots of the trees penetrate too deeply into a poor, cold subsoil that they cause a weak and sluggish root action. If the Pears are affected in the same way every year we should be inclined to say that the latter is the cause in your case, and would advise that a top-dressing of rich soil should be given, having previously taken away 8 inches or 9 inches of the old soil. This dressing will encourage the formation of abundance of healthy surface roots, and will, if continued for a few years, result in freeing the tree from the weakness of producing this deformed fruit. If the Pears are only deformed occasionally the probability is that spring frost is the cause, in which case nothing, we are afraid, can be done to prevent it.

E.—There is nothing more effective in destroying mosses and lichens on fruit trees than strong soap-suds, especially when soft soap is used. To a gallon of this add a pint of fresh slaked lime. Apply it to the trees warm in damp weather, using a fairly hard brush, and brushing sufficiently hard to loosen the moss. Great care must be taken not to injure the fruit-buds in brushing.

MISCELLANEOUS.

E. T. E.—The secretary of the National Rose Society is Mr. Edward Mawley, Rosebank, Berkhamsted.

INSECT-INFESTED GARDEN (Suburban).—At this time of year no doubt the grubs, caterpillars, and other insect pests are somewhat dormant, their eggs doubtless lying in the soil a few inches from the surface. If you could first dress the soil heavily with soot and then open a trench 2 feet deep at one end of the ground and bury the surface and infested soil well down, adding still more soot to that, then putting 10 inches to 12 inches of the lower soil upon that, you would probably get rid of them. If that cannot be done, then get gas lime, crush it fine, and spread it evenly all over the garden, allowing it to lie for a couple of weeks,

then well forking it in. Later give the ground a dressing of 4 lb. of basic slag and 2 lb. of kainit, forking it in. During the summer an occasional dressing of fine salt may be given at night, but not on leafage. Apply gas lime at the rate of three-quarters of a bushel per rod.

Alacie.—The insects are the caterpillars of the garden swift moth (*Hepialus lupulinus*). They feed on the roots of most plants, and are very destructive. I am sorry to say that I cannot suggest any method of destroying this pest but turning the caterpillars out of the ground and killing them. Insecticides cannot be made to reach them with fatal effect, unless they are used of such strength that they would injure the plants.—G. S. S.

NAMES OF PLANTS.—*J. Lurani.*—*Picea orientalis*. *Liriope graminifolia* is a synonym of *Liriope spicata*.—*W. Edwards.*—1, *Dædalacanthus macrophyllus*; 2, *Dieffenbachia picta*; 3, *Achimenes* sp. (not in flower); 4, *Nepeta glechoma* var. *variegata*; 5, *Cordylone Cooperi*; 6, *Codiaeum (Croton) Van houtteanum*; 7, *Cordylone Gladstonei*; 8, *Codiaeum interruptum*; 9, *C. Laingii*; 10, *Trachelospermum jasminoides*.—*T. W. B.*—*Ornithogalum lacteum*.—*Constant Reader.*—*Cestrum elegans*.—*J. E. B.*—*Isoloma hirsuta*.

NAMES OF FRUIT.—*O. J. M.*—Apple *Rosemary Russet*.—*L. A. Bucks.*—1, *Emily Childs*; 2, *Reinette Grise*; 3, *Ribston Pippin*; 4, *Hambleton deux Ans*; 5, *Reinette du Canada*; 6, *Tower of Glamis*.

BOOKS.

The Garden that I Love.*—This is a new edition of a book already well known, and the publishers' chief reason for issuing it appears to lie in the fact of its being illustrated by Mr. George S. Elgood, whose pictures of flowers and flower gardens have already formed the subject of previous notices. "The Garden that I Love," in its present form, is well got up; the paper, printing, and binding being executed in a style that leaves very little room for criticism. The text is well known to most readers of this class of literary garden-book, and our chief reason for noticing the work is to call attention to the very pretty sixteen full-page illustrations in colour by Mr. George S. Elgood, which adorn the work. The frontispiece is a picture of an old red-tiled country house with creeper-clad gables, and partly hidden by a flower border, which must be regarded as a triumph of the gardener's art. Apple Blossom is very delicate; another pretty one is entitled *Orange Lily and Monk's Hood*. The Village Church is a scene in a Cornfield. The Seat Beneath the Oak is delightfully suggestive of shade. Other illustrations mostly explained by their titles are *Larkspur and Meadow Rue*, *Crimson Rambler*, *The Little Walled Garden behind the older part of the Manor*, *Torch Lily*, *Evening Primrose*—all of which are executed in the best style of colour printing possible. As a beautiful gift-book to anyone having an interest in the flower garden we can hardly imagine anything more suitable and more artistic.

SOCIETIES.

ROYAL HORTICULTURAL SOCIETY.

THERE was a very attractive display at the meeting of the Royal Horticultural Society held on the 19th inst., Orchids and indoor flowers being most largely shown. There were several splendid groups of Orchids, the gold medal being awarded to one of them. Messrs. James Veitch and Sons, Limited, Chelsea, were awarded the Hogg Memorial Medal for fruit.

ORCHID COMMITTEE.

Present: Mr. J. G. Fowler (chairman), Messrs. James O'Brien, de Crawshaw, Norman C. Cookson, J. Douglas, W. A. Binley, Francis Welleale, Walter Cobb, Richard G. Thwaites, H. T. Pitt, A. A. McBean, F. W. Ashton, G. F. Moore, H. A. Tracy, T. W. Bond, J. W. Odell, W. H. Young, W. Boxall, Harry J. Veitch, W. H. White, H. Ballantine, and R. Brooman-White.

A large and charming exhibit of Cypripediums and other Orchids was shown by F. Monteith Ogilvie, Esq., The Shrubbery, Oxford (gardener, Mr. W. Balmforth). The group filled one end of the hall; the background was of Palms and handsome specimen foliage plants; the Cypripediums in many choice sorts were massed in front, relieved here and there by groups of gracefully arching *Oncidiums*, *Lælias*, &c. The pots in which the plants were growing were quite hidden by moss and Maidenhair Fern. This was altogether a delightful exhibit. In the centre Cypripedium insigne *Sanderae* was represented by a number of well-flowered plants, while other rare and

* "The Garden that I Love," by Alfred Austin (Poet Laureate). London: Adam and Charles Black.

valuable varieties arranged in small groups were *C. insigne* Laura Kimball, Chantini, Holfordii, leeanum giganteum, Harefield Hall, clinkaberryanum, youngianum, and others. *Cypripedium Maudiae*, *C. callosum* Sandere, *C. Venus*, and others were shown. *Oncidium varicosum* Rogersii, *Lelia anceps* sanderiana, and other Orchids gave further variety and colour to a group that well deserved the gold medal awarded.

G. F. Moore, Esq., Chardwar, Bourton-on-the-Water (gardener, Mr. Page), exhibited a group of *Cypripediums*, both cut flowers and plants. Some of the rarest and most valuable varieties were represented; the flowers were fresh and very beautiful. *C. Dorothy*, *Ballia*, *dormianum*, *Sandere*, *sanderianum*, *George Corser*, *Black Prince*, *clinkaberryanum*, *splendens*, and *Harefield Hall* were some of the best shown. They made a very handsome exhibit. Silver-gilt Flora medal.

The group of Orchids shown by Jeremiah Colman, Esq., Gatton Park, Surrey, filled half a long table. It made a delightful display, such graceful things as *Calanthe*, *Lelia*, and *Oncidium* forming the chief features. *Calanthe Veitchii* and its white form, *C. William Murray*, and other hybrids were shown in masses, each plant being finely in flower. *Oncidium varicosum* Rogersii made a brilliant bit of colour, and *Lelia anceps* in several varieties was very beautiful. Numerous choice *Cypripediums* were also included. Silver-gilt Flora medal.

Messrs. Sander and Sons, St. Albans, exhibited a small group of Orchids that included several choice *Cypripediums*, e.g., *C. Niobe* var., *C. St. Alban*, *C. Masterso-callosum*, *Odontoglossum ruckerianum* var. *insigne*, *Cymbidium elegans*, *Zygopetalum Mackayi*, *Cologyne fuscaceus*, and others. Silver Flora medal.

The Hon. Walter Rothschild, Tring Park, Herts (gardener, Mr. A. Dye), exhibited a small group of *Masdevallias*, numerous species being represented. Silver Banksian medal.

Mr. J. Cypher, Cheltenham, exhibited a group of Orchids that included some good *Odontoglossum crispum* and some beautiful *Cypripediums*. Among the latter *C. triumphans*, *C. insigne* *Luciæ*, *C. Titius*, and *C. i. Sandere* were noticeable. Silver Flora medal.

Messrs. Charlesworth and Co., Heaton, Bradford, were awarded a silver Banksian medal for a small group of *Trichopilia suavis*, the plants being finely flowered. Several hybrid *Cypripediums* and *Lelio-Cattleyas* were also shown.

Messrs. Hugh Low and Co., Bush Hill Park, Enfield, showed a group of Orchids, consisting chiefly of *Cypripediums*, of which many good ones were shown. Silver Banksian medal.

Messrs. Heath and Co., Cheltenham, exhibited a small group of *Cypripediums*.

Lycaste lasioglossa, with brown sepals, yellow petals, and yellow-brown hairy lip, was shown by C. P. Phillips, Esq., The Gaer, Newport, Mon.

Several beautiful Orchids were shown in small quantities by various exhibitors. Two of the *Cypripediums* shown by Drewett A. Drewett, Esq., received the award of merit. F. W. Wellesley, Esq., sent several good *Cypripediums*. *Lycaste armeniacæ*, a beautiful flower with white sepals and a salmon-pink colouring in the petals, was shown by J. Bradshaw, Esq., Southgate.

A cultural commendation was given to a plant of *Cypripedium leeanum* clinkaberryanum bearing twelve flowers. Shown by N. C. Cockson, Esq., Oakwood, Wylam-on-Tyne (gardener, Mr. H. J. Chapman).

NEW ORCHIDS.

A first-class certificate was awarded to: *Cypripedium Thalia* Mrs. Francis Wellesley.—A very beautiful flower of perfect form. The rounded dorsal sepal has a ground colour of green in the centre, spotted with dark purple; the broad band of white extending from the green colouring to the margin of the sepal is spotted with light rich purple. The spots on the dorsal sepal are arranged in lines. The petals and lip are red-brown. Shown by Francis Wellesley, Esq., Westfield, Woking (gardener, Mr. Hopkins).

Each of the following received an award of merit: *Cypripedium insigne* *Aberdeen*.—A handsome variety with large dorsal sepal, which has a broad margin of white, the remaining central part of the sepal being bright green. This is marked with heavy blotches of brown, a few blotches on the white ground colour are light purple. The pouch and petals are shining brown, and the latter have a green margin. Shown by Drewett A. Drewett, Esq., Willow Wood, Riding Mill (gardener, Mr. J. Renwick).

Cypripedium Arthur Lee.—The parents of this hybrid were *C. arthurianum* and *C. leeanum*. In form the flower much resembles *C. arthurianum*. The dorsal sepal is white, spotted with purple towards the centre, with a green base, which is also spotted with purple. The lip is a pretty red-brown, while the long drooping petals are marked with brown upon a green ground. Shown by Drewett A. Drewett, Esq., Willow Wood, Riding Mill (gardener, Mr. J. Renwick).

Odontoglossum wilckeanum schroderianum.—A large and strikingly handsome flower, heavily blotched with chestnut-red upon a cream-coloured ground. The lip is large and well formed, and of a lighter shade than the sepals and petals. Shown by Baron Sir Henry Schröder, Bart., The Dell, Englefield Green (gardener, Mr. Ballantine).

Lelio-Cattleya Clive, *Westenbirt* var.—A handsome flower, the result of a cross between *Lelia prestantis* *magnifica* and *Cattleya aurea*. Sepals and petals are of a uniform rich rose-purple colouring, while the broad drooping lip is purple and the throat gold coloured. Shown by Major G. L. Holford, C.I.E., Tetbury (Orchid grower, Mr. H. Alexander).

Schomburgkia chionodora.—A raceme bearing five flowers was shown. The flower is pure white, except for a faint

yellow tinge in the throat and the purple colouring of the column. (From Sir Trevor Lawrence, Bart., Burford, Dorking (Orchid grower, Mr. W. H. White).)

Cypripedium tessellatum var. *rubens*.—A small flower of uniform crimson colouring, and marked on the dorsal sepal and petals with minute blackish dots. It is the result of a cross between *C. concolor* and *C. barbatum*. From Messrs. Sander and Sons, St. Albans.

FLORAL COMMITTEE.

Present: Mr. W. Marshall (chairman), Messrs. H. B. May, C. T. Drury, G. Nicholson, J. Green, R. C. Notcutt, G. Reuthe, W. Howe, C. R. Fielder, J. Walker, J. Hudson, E. Mawley, C. Dixon, C. Jefferies, H. J. Cutbush, C. E. Shea, W. P. Thomson, E. H. Jenkins, W. J. James, and G. Paul.

The Begonias from Messrs. Thomas Rochford and Sons, Turnford Hall, were a well-grown lot. The batch was of the *B. Gloire de Lorraine* type, and of this *B. Turnford Hall* and *B. Rochford's Masterpiece* were the chief. *B. amabilis*, *B. socotrana* × *Rochford's Masterpiece*, with redder flowers, was remarkable for its huge and almost ungainly leafage. Silver Flora medal.

Messrs. William Bull and Sons, Chelsea, staged a collection of ornamental plants suited for table decoration, *Crotons*, *Aralias*, and the like.

Mr. S. Mortimer, Farnham, Surrey, showed a very beautiful lot of the American Tree Carnation, the clean and fresh blooms creating much interest. Bronze Flora medal.

A table of well-grown plants from Messrs. Veitch and Sons, Limited, Chelsea, was made up of the winter-flowering Begonias and two species of *Jacobinia*, of which *J. chrysostephana*, with golden-coloured tubular flowers was most conspicuous. *Begonia Julius*, with semi-double flowers, was good and showy. Silver Banksian medal.

A beautiful lot of Tree Carnations came from Mr. C. F. Waters, Balcombe, Sussex, in which the chief variety was the pink-flowered *Pride of Exmouth*, a compact growing and free-flowering variety of English origin. Many American varieties were shown. Bronze Flora medal.

Messrs. Cannell and Sons, Swanley, had a fine exhibit of *Begonia Gloire de Lorraine* and its white variety, *Turnford Hall*. The plants were excellent in every way. Silver Flora medal.

Messrs. Peed and Son, West Norwood, again brought a large exhibit of alpine and rock plants. Bronze Flora medal.

Messrs. T. S. Ware, Limited, Feltham, exhibited Tree Carnations very finely, and principally of the well-known American varieties. Bronze Flora medal.

Begonia Gloire de Lorraine in its several varieties was largely shown by W. S. Laycock, Esq., Oakbrook, Sheffield (gardener, Mr. P. Massey). The plants were very numerous, and filled quite a large table. Silver-gilt Banksian medal.

Messrs. Cutbush and Sons, Highgate, filled a large table with winter flowering plants in which Tree Carnations, Heaths, and other things figured. The retarded plants from the same firm were exceptionally well done. *Citrus sinensis* and *Daphne indica rubra* were also good. The exhibit attracted a good deal of attention, the plants being exceptionally well grown. Silver-gilt Banksian medal.

The Misses Hopkins, Mere, Cheshire, had a small exhibit of alpine and other hardy things, chief of which were Christmas Roses, which were exceptionally well grown and flowered. Bronze Banksian medal.

Mr. H. B. May, Edmonton, had an exhibit of choice plants in which *Eranthemum pulchellum*, *Daphne indica alba*, *Camellias*, and a great variety of Ferns were included. Silver Banksian medal.

Several varieties of Carnations came from Mr. H. Burnett, St. Margaret's Vineries, Guernsey; and *Begonia* Mrs. W. S. Laycock from Messrs. Artindale and Son, Nethergreen Nurseries, Sheffield. *Chrysanthemum Chesswood Beauty*, a good bronze, was shown by Mr. G. Beer, Chesswood Gardens, Worthing.

NEW PLANTS.

Carnation Aurora.—A yellow ground fancy variety in which the scarlet flakes were both clear and well defined. From Mr. H. Burnett, Guernsey. Award of merit.

Carnation Fair Maid.—An American tree variety of a clear and showy pink shade, the stiff stems carrying the flowers nearly erect. From Mr. S. Mortimer, Farnham, Surrey. Award of merit.

Chrysanthemum Dr. Enghard.—A showy pink-coloured American variety, with spreading florets. A good decorative kind. From Messrs. R. H. Bath, Wisbech. Award of merit.

Nephrolepis exaltata superba.—A very beautiful Fern, admirably suited to table decoration. The fronds are nearly 20 inches in length by 3 inches to 4 inches broad. Each is of a rather strong description, bordered by broad closely-set divisions, the latter terminating in a crested margin. There is quite a paper-like crispness in these plumose margins, which adds to the beautiful effect produced. From Mr. H. B. May, Edmonton. Award of merit.

Citrus japonicus.—A striking and useful plant at this season, crowded with oval-shaped fruits of a golden colour about the size of a Walnut. The 2 feet high plants were crowded with such fruits. From Messrs. James Veitch and Sons, Limited, Chelsea. Award of merit.

FRUIT AND VEGETABLE COMMITTEE.

Present: Messrs. George Bunyard (chairman), J. Cheal, S. Mortimer, W. Pope, A. Dean, H. Markham, Horace J. Wright, H. Parr, C. Foster, G. Keif, W. Poupard, A. H. Pearson, and John Lyne.

Messrs. James Veitch and Sons, Limited, Chelsea, exhibited an excellent collection of Apples and Pears, no less than 118 dishes being shown, each one containing a

different variety. The Apples were finely coloured, and, in fact, were splendid fruits altogether. Newtown Wonder and Cox's Orange were, perhaps, the best dishes; both were represented by perfect specimens. King of the Pippins, Bramley's Seedling, Lane's Prince Albert, Warner's King, Barnack Beauty, King Harry, James Grieve, and others, too, were well shown. Several dishes of Pears were exhibited, Le Lecter, Chaumontel, Bellissime d'Hiver, and Beurré Balthé Pêre being in excellent condition. The Hogg Memorial medal for fruit was awarded.

Messrs. S. Spooner and Son, The Nurseries, Hounslow, showed Apple The Baron, but no award was made to it.

A silver-gilt Knightian medal was awarded to Mr. C. Foster, University College, Reading, for a collection of vegetables. Tomatoes, Onions, Rhubarb, Cardoons, Endive, Celeriac, and other vegetables were all well shown. The produce was of medium size, and well suited for the table.

DUNDEE HORTICULTURAL SOCIETY.

The usual monthly meeting of the above association was held in the Technical Institute, Dundee, on the 5th inst. There was a good attendance. A paper was read by Mr. John Summers, Ashcliff Gardens, his subject being "Impressions of a Trip to London Parks." It was dealt with in a highly-interesting and chatty way. A considerable portion of his remarks referred to the tree pruning as practised in the London parks, but no department of the wide subject was left unnoticed. The great Vine at Hampton Court was referred to in appreciative terms, and many other interesting points were well dealt with. Mr. Summers was warmly thanked for his paper.

BATH GARDENERS' DEBATING SOCIETY.

Mr. T. PARROTT presided over the fortnightly meeting of this society at the Foresters' Hall, Bath, on Monday, the 11th inst. There was a large attendance, and the exhibits displayed were beautiful and numerous, chief among them being some fine Chinese Primulas shown by Messrs. H. Spary and A. Parker respectively, both of which received the maximum number of points. Mr. Butt exhibited a fine collection of vegetables, and Mr. Bickerstaff an excellent dish of Winter Beauty Tomatoes, the latter being awarded a first-class certificate. The chairman made a statement regarding the future plans of the society. They had arranged, he said, a very good programme of lectures in the new year, and gave full particulars. He also mentioned that the second annual smoking concert would be held on January 8. The chairman read an instructive paper on "Begonia de Lorraine," of which he has made a special study. An interesting debate followed. Four new members were elected. A vote of thanks to the chairman concluded the meeting.

REDHILL, REIGATE, AND DISTRICT GARDENERS ASSOCIATION.

A MEETING of the above society was held on Tuesday, the 12th inst., Mr. W. P. Bound in the chair. About 100 members were present. Mr. F. C. Legge, The Gardens, Patten Court, read a paper on "The Cultivation of the Violet for Winter Flowering." In his opening remarks the chairman called attention to the reputation which Mr. Legge had gained for himself, and the success which he had met with in growing this beautiful flower. The lecturer gave a very clear description of his method of culture. Several questions were asked, while a capital discussion followed. A hearty vote of thanks was accorded Mr. Legge for his valuable paper. A collection on behalf of Mr. Burdett (incapacitated through illness) was made at the close of the meeting. This resulted in a sum of £4 3s.

CARDIFF GARDENERS' ASSOCIATION.

The last meeting for 1905 took place at the Sandringham Hotel on the 12th inst., when Mr. R. Mayne presided over a large attendance of members. A very instructive lecture was delivered on "Fruit Trees in Pots" by Mr. John Dinwoodie, head gardener, The Duffryn, Glamorgan-shire. The lecturer is a keen and successful cultivator of the plants he dealt with. The chairman asked the lecturer to answer the numerous questions which had been put to him. After replying, the heartfelt thanks of the meeting were accorded to him. Messrs. Dinwoodie and Julian were then elected to adjudicate upon the best two stalks of Brussels Sprouts. Three competitors staged. The prize of 5s. offered by Mr. Northcote, Penylan, was awarded to Mr. T. Richards, Penarth, for a very fine lot. Mr. E. H. Battram, F.R.H.S., of Parknewydd, Abercynon, will give the opening lecture on January 9, 1906, the subject being "Hints to Young Gardeners."

SOUTHPORT NATURAL SCIENCE SOCIETY.

At the last monthly meeting of the Southport Society of Natural Science, held at the Queen's Hall, Nevill Street, there was a good attendance of members and friends present to hear a lecture from Mr. W. H. Stansfield on "The Geographical Distribution of Alpine Plants." Mr. R. J. Parkes, president of the society, occupied the chair. After a most interesting and entertaining lecture, Mr. Stansfield had a number of beautiful slides thrown on the screen, showing how the numerous specimens of which he had given particulars in his address were distributed in Switzerland and in the British Isles.

A number of questions having been asked and ably answered by the lecturer, a hearty vote of thanks was accorded Mr. Stansfield.

* * * The Yearly Subscription to THE GARDEN is: Inland, 6s. 6d.; Foreign, 8s. 9d.

